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# Zen & the Art-ifice of Ingenuity

**Zen and the Art•ifice of Ingenuity V-II:** Comparative Educational Pedagogy's - towards an emergent Chiro-pedagogy (eBook2)

**Key Words:** Androgogy, Alternative Pedagogy, Exemplar Systems Development, Experiential and Action Learning, Vocational Education, Adult and Community Learning, Artificer, Bush Mechanic, Bricoleur, Constructivism, Social Ecology, Social Anthropology, Ecosophy, Bioneering

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## Quotable Quotes

You have to use your body  
To find out what it is, and.....  
Who you are.

'Such essays cannot await the permanence of the book. They do not belong in the learned journal. They resist packaging in periodicals.' Ivan Illich, *Energy and Equity* (1973).

The Vedic rishis/sages say Knowledge is for action viz. Knowledge Is Action even Knowledge  $\infty$  Action.

**Tabula ipsa loquitur** ~ The bench speaks for itself/herself (bench in Latin relates to the feminine; and opera means work – so work-bench becomes opera-tabula).

The study of biology and thus evolution makes it clear that living organisms are ingenious contraptions, artifices cobbled together from odds and ends as circumstances dictate. Although many bits operate beautifully a lot of the 'design' has a 'make do' Bricoleur – use what is at hand – air about it. Davies (2006:222 – adapted PW).

So again, we are letting our ingenuities soar and guide us in the energetic field. This time we are like eagles flying high in the sky while keenly looking to the earth, asking what future generations may want from us. Anderson (2009:190( (adapted PW).

**Chiro-Pedagogy** is about: *the design implementation and review of an intergenerational learning system designed to help develop well rounded robust citizens with skilled hands, open hearts, clear intellects, deep wisdom and practical ethics, all interconnected through the application of their ingenuity in practical individual and group projects of service to humanity and the globe in an exemplar participatory school – community - planet environment [V6:16-02-2010 V1:14-02-2010]. NB: Well rounded robust citizens includes: physical, physiological, psychological, emotional, mutual aid and creative dimensions.*

### Do we manage and make?

We do not manage over things - we manage within the un-manageable

We do not organise in any absolute sense - we organise within the un-organisable

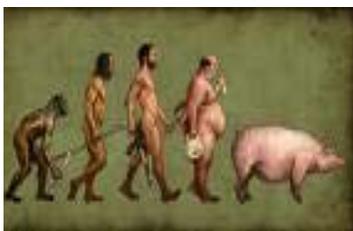
We cannot know everything - we will simply know of the un-knowable

We do not make things - we only make within the un-makable.

[Flood, R. (1999). *Rethinking the Fifth Discipline: Learning within the unknowable*. London. Routledge. 212 pgs. pg3. [Adapted PW] quoted in: Inayatullah, S., M. Bussey, and I. Milojevic. (eds). (2006). *Neohumanist Educational futures: Liberating the Pedagogical Intellect*. Maleny, Tamkang University Press. 400pgs.pg91]

Come let us go, who hope for the unknown,

Who know what must be done and don't wait for it to happen. Paulo Freire 1990.



*Humans have demonstrated repeatedly for millenniums that we are incapable of long range thinking regarding any actions needed to sustain our viral growth of the species. Only some worldwide viral epidemic, a natural disaster of planetary scope, or a man-made disaster will end the insanity known as modern man! We can hope that the remnants of man will be adaptive, self sustaining and largely hand-made; but I would not want to make any bets that this economic animal will survive...would you? Anon.*

Many authors rightly write from a perspective of revolutionary anger – understandably so – an anger at the ways our systems keep 2billion of us in poverty, of how our environment is being burnt and our mother Gaia consumed by her children. For me I deeply respect this revolutionary anger however I do not write

from this perspective I write from evolutionary anger – an anger that in our pedagogy we have ignored evolution, ignored the grain of our brain, and put the cart of thinking before the horse of action, of obsessing about collective statistics and economic performance and forgetting the development of practical wisdom to act ahead wisely in our children thus, I believe betraying our mother. Ignored how we became who we are – humans. Paul Wildman 03-2010.

We live our lives between mystery and mastery. Flood (1999:193)

The people could be made to accept the most flagrant violations of reality, because they never fully grasped the enormity of what was demanded of them, and were not sufficiently interested in public events to notice what was happening: **George Orwell**

Political language . . . is designed to make lies sound truthful and murder respectable, and to give an appearance of solidity to pure wind: **George Orwell**

Praxis should be the morality of our culture. **Paul Wildman** 06-2010

The historicising of ethical notions as distilled in the concrete temporally situated exemplar project means that any claims to universality, sublime beauty or even permanent truth in ethics therefrom have always required a rationalisation of politico-personal interests'. Paul Wildman 06-2010. After Lockridge (1989:26)

We shall require a substantially new manner of thinking if mankind is to survive. Albert Einstein - (1879-1955) Physicist and Professor, Nobel Prize 1921

Grounded creativity is an expression of life force manifesting itself into consciousness. Neil McLachlan (07-2010).

A true Exemplar Project makes life more interesting than the Exemplar Project. PW 20-08-2010

Creative courage . . . . . is the discovering of new forms, new symbols, new patterns on which a new society can be built. Every profession can and does require some creative courage. (RM1)

Those who present directly the new forms and symbols are the artists and artisans – the dramatists, the musicians, the painters, the dancers, the poets and the distillers and builders of our tomorrows . . . (RM2)

**‘Crea(c)tivity’** to rephrase our definition, **“is the (practical) encounter of intensely conscious human being with our world.”** (RM3). Based on the work of Rollo May (RM)

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## Disclaimer ~ Intellectual Property

Please note these documents are part of the Bush Mechanic Action Research Project (BMAP). Underway since 2000, the project seeks to demonstrate the various attributes and historical manifestations of the largely ignored intelligent artificer created by humans, so as to better emphasise the need to consider humans as artificers. To do this I draw from several experts in the field inc. directly accessing sections from their works. In every instance I seek to source their work. This work does not claim to be 'original' in each and every word sentence or phrase; I kneel on the shoulders of giants who have gone before me. Some of the thoughts are original and the streams of thought and scholarship are in some regards original. Sometimes I paraphrase their work; so that the body of the report and other documents, in particular the auxiliary documents draw strongly from other authors as indeed ultimately do the vast majority, if not all, of our ideas.

This bush mechanic series is a public domain resource provide free of charge on our company website\* at our expense. It is a not for profit exercise in pedagogical anthropology even, and has been a more than spare time 'labour of love for me now for 10 years'. I, in no way claim to be the unique author of these materials/extracts in this particular document. Nor do I claim or seek privilege or to make money from claiming that the ideas in the overall project are mine or unique or new. Nor do I uniquely claim the ideas embodied in this work and the work it draws from. I adduce evidence to support the view that the concept is deeply embedded in humanity and the 'grain of our brain' and the text comes from myself, as well as others and from my experience particularly over the past decade inc. discussions with colleagues, from reading and writing articles, personally undertaking an exemplar project over five years, and this action research project over the past decade.

Simply put the sources I use are the best I have found and speak directly to the point of the project and the Global Problematique, and the response thereto viz. the Artificer, that it seeks to engage. In a cumulative work of literally a thousand pages all up there will always be an opportunity to say 'he didn't quote the source adequately there or here' etc. And this will be right in some instances and in this regard I apologise and will stand corrected and on notification ( [paul@kalgrove.com](mailto:paul@kalgrove.com) ) of same will immediately remediate the situation and if and where there are any instances of incorrect or insufficient sourcing, I apologise for this and request that you please let me know and this will be corrected in subsequent versions.

You are of course most welcome to become involved in, and participate with myself and a group of supportive colleagues extending the Artificer Learning process. An email to the same address will be most welcome.

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\* <http://www.kal.net.au/portal/> see menu bar at top right 'adult learning' – please click this

## Disclaimer ~ Apologetics

**Dear Reader** and Praxiser our language is ours and in anyone of our tomes the words that Shakespeare himself used in Hamlet for instance can be found yet not in the arrangement he adduced. So it is in this sense of ‘linguistic commons’ that I seek deeply to problematise the conventional approach to copyright and intellectual property even while at the very same time rigorously holding myself to account to this very approach as per my disclaimer – intellectual property above.

## Disclaimer ~ Academics

Here I seek to write not as an academic but yet not not as an academic rather as an outlier more externalised than even an exile. For me I believe that the work of challenging pedagogy cannot be done by those who write within the confines of the institutions of higher learning or bureaogogy as I call it. Such writing is part of the problem that is part of the preservation of their elite’s prerogative and thus part of what is being challenged. This Zen position does not prevent me from engaging in deep selective respect and utilisation of their work, however we have to use these works as supplements and go about our real task of *starting somewhere different*.

In turn our minds have been dulled by successive generations of professors and lecturers whose circumscribed and emasculated intellect has prevented them from exploring beyond their own reiterated noospheric dogma and theories.

The physiospheric world comes to our academic colleagues, in the shape of parking, tenure, rooms, computers, lecture halls and so forth seldom if ever to they/we have to even lift a finger to help, in direct Artificer/Bush Mechanic manner, this happen. We never have to get dirt under our fingers – let others do this. Even moreso let them do the water-boarding, the shooting the financial wizardry – our responsibility ends at the point where we ceremoniously hand over their degrees, thus giving them access to the hallowed halls of power.

Today many academics suggest that they are tied up with the credentialing of the status quo, too busy with committees and meetings, in short compliance and if this could be lessened then good things would flow. For me however their attempts to suggest that the academy is prepared to change from within disguise what for me are nothing less than the desperate last efforts to hang on to old paradigms that the world has moved far beyond. Yet their loyalties and fealties to the power structure that birthed them remains unbroken even if yet at times weakly critiqued.

In this sense, and after Matheson (2008:273) I seek to take the Bourdieuan post-structuralist approach of viewing the controlled control standardised bourgeois curriculum as a privileged instrument of the University which in turn is a privileged instrument of bourgeois sociodicy that confers on the elite the supreme privilege of not seeing themselves as privileged and convinces us the disinherited that they owe their school and social destiny to our lack of gifts or merits in relation to this curriculum, because in matters culture m, absolute dispossession excludes awareness of being disposed.

**Introduction – overall concept – eBook1 & eBook2**

This series is an explication of, participation in, and search for exemplars and **a genealogy for the Bushy** indeed a **pedagogical ethnography** nonetheless, an historical and futurical archaeology of a voiceless phenomenon. A tall order? A fantasy? Retrofit and force-feed facts to justify such links? Poorly executed? Well maybe. You be the judge. Herein I believe we will find a genealogy a long since silenced one of great history and a great future if we but try, if we but look, if we but breath differently. The bushy is there and does matter. Here we explore what could be called a ‘counter narrative’ provisional, partial and contingent, yet nevertheless one that seeks to give voice to this that has been ‘othered’ by the Status Quo – a form even of Indignant Indignation Pedagogy based on a ‘trickle up’ approach. Answers remain however provisional and situated nevertheless there is I respectfully at least something substantial on the line. I hope you enjoy the search as much as I have.

### Action Research Project **Uber-Konzept** for the overall project

The uber-konzept or over concept of this series has been for a decade long research program explicated in three principal volumes of which this is the second, as other related support research material. The first volume – **eBook1** - covers the actual field-based action research project to explore and uncover the details of the concept of the bush mechanic/artificer. This second volume – **eBook2** – explores pedagogical issues esp. as they relate to mainstream education esp. through a concept I develop of ‘educational actionistas’.

For me I submit that today we are brought to ask, to task and indeed to reinvent the very culture that has grown us and that has naturalised and had us internalise many of its *modi horribilis* or horrible methods, so to speak. We need a new story line a (re)new dreaming and an associated (re)new learning. In short we have to consciously evolve our culture or as I put it herein, to ‘re-evolve’ our ontology and its associated pedagogy. As a, if not the, crucial element in social formation **this eBook series** critically and ultimately syncretically explores the Artificer and Western Pedagogy.

Few if any pedagogy authors today are tackling the serious issue of the deep failure of conventional pedagogy; I call this legacy world pedagogy, head on by seeking to develop a renewed pedagogy out of the ashes of the old. Here I argue we will have to look to the non legacy world that is we have to realise that the writing of academics (and text based communication, almost an arcane theology, is basically all academics can do) becomes part of the legacy world and thus part of what is being challenged by the non legacy world and its stumbling efforts such as this eBook series. While many authors critique our existing pedagogy vociferously, few if any actually posit an alternative secular pedagogy alongside our existing one.

In this series I seek to adduce that the Artificer approach is both Transmodern and Tanswestern. It does not displace the modern or the western but transcends

The third volume will be hopefully an ethnographic documentation of small scale initiatives in line with the main praxeological outcomes and discoveries of Vol I and Vol II, possibly via. U-Tube vignettes – hopefully to be completed by 2011.

# Introduction – This Volume Vol 2

## Introducing this Volume

*There is a long standing tradition among critical theorists that pedagogy, as a moral and political practice, plays a crucial role in constituting the social. Giroux (2006:56)*

*Pedagogy is about more than an investment opportunity, citizenship is about more than consuming learning is about more than preparing for a job and democracy is about more than making choices at the local mall. Giroux (2006:61) [PW adapted]*

## Dirty Hands Futures

I submit that the West's and Modernity's episteme and indeed ontology is essentially noospheric i.e. theoretical and it is this non pragmatic or non physiospheric approach of 'no dirty hands here please we're all futurists' that has allowed the dominant 'neocon'ism' of the short term, extremely pragmatically powerful paradigm of untrammelled market forces to remained largely unchallenged and even worse largely unchallengeable. Barber (2010:173). This eBook series then is a determined and I submit authentic decade long attempt to provide one such dirty hand prognostication.

## Enter Stage Left - Chiro-pedagogy

This volume seeks to refine and define, as far as practicable, the specificities of Artificer Learning posited here as Chiro-pedagogy here called educational actionistas and then to compare this with other major embodied learning pedagogies. The first eBook in this series sought to document the research and attributes of this pedagogical genera if I may.

Central to this discourse will be 'techne' which is about the awakening of agency of the individual and groups out of the mechanism of technique and compliance. In this regard it is my view, argued in this eBook, that techne is the centre point of what may be called a chiro-pedagogy<sup>i</sup>. One centred on the hand and committed to the view that the knowledge travels from the hand to the head not the other way round. It may be that in some small way this eBook provides a small contribution to this outlaw philosophy. Thus I submit that the Artificer Bush Mechanic is one, indeed a crucial and long forgotten, pedagogical way forward in this (re-)evolution.

**Project Attribute: Research Process ~ Artificer Action Research (AAR):** For 40 years I have been working at the junction of activism research and community work in the file of sustainable community futures. A region that although rich in research issues and urgent

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<sup>i</sup> Such a chiro-pedagogy is a component of an emergent chiro-philosophy, the latter, however is well beyond the scope of this eBook as well as beyond the capabilities of its author. See also Auer (2003). To this end I ask the reader's forbearance and to allow me to speak only of possible elements of an emergent chiro-pedagogy for us chiro-sapiens. In my partial opinion it would be based on a '**master hand stroke**' ontology that extended the hand as follows and include concepts such as techne, the braiding even melding of thinking and doing as well as that of substantive and instrumental in moral philosophy or epistem and ontology. The expression of this **chiro-philosophy** (*glad hands*) would be seen in social phenomena such as quadrinity of (1) joining up process such as Community Economy Development (*prudential handiness*) and (2) wisdom phenomena such as Eldership (*wise hands*) and be represented by (3) the agentic factor of Artificership (*skilled hands*) within the (4) context of sustainability as per the eNuffer (*community handiness*).

socio needs is to a large extent still *terra incognita*. Unfortunately working where these three realms meet is to work on the margins of each and collectively way outside the conventional silo-discipline areas on conventional Universities. The region is more than interdisciplinary more than disciplinary more than transdisciplinary it is more ‘transpraxinary’ as indeed are all rich picture research questions. It will be my proposition that a key method of investigating and enlivening (enlivening) this junction is through the use of what I term AAR<sup>ii</sup> – Artificer Action Research codified in the Exemplar Project which demonstrates today that a better world is possible tomorrow.

Here Action Research, while respecting verification and reliability of knowledge, primarily seeks to generate actionable intersubjective knowledge and insight from the field rather than necessarily ‘T’rue objectified externalised knowledge. In this regard and in deference to Dewey this series maintains that truth can be seen in a holonic resonance of idea and reality through the use of the symbiosis in enhancing the eco-human condition i.e. through exemplar action that leads to the resolution of a particular challenge or problem. This is PPP - *Practicing the Primacy of the Practical*. Here AAR extends AR’s generation of local dialogical knowledge to local praxeological knowledge.

It’s just that we have no way pedagogically of engaging this bottom up collective rich research picture other than dissecting the questions in order to force fit the field to fit the silo disciplines. I decline to enter this process and indeed have acknowledged the importance of future study and academic pursuits in my various degrees however in the end I argue that unless one can research from the bottom up the educational experience is seriously attenuated – thus this series. This series is designed to mitigate that problem.

#### ***Emergent Chiro-Pedagogical Action Research Methodology (ECPARM):***

ECPARM includes the methodological principles of reflexivity both between the researcher and researched and outcomes and objectives, commitment to review and ongoing learning for all involved, open enquiry and process inc. the visibilising of data and recognition that AAR is importantly a political process:

Out of these principles the following research protocol emerges:

1. Research protocol based on, and lensed through the actions (AAR) requisite, from the epistemic and methodological standpoint of the hand produced exemplar project
2. Critical process of reflexive, and meta, questioning these three project attributes

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<sup>ii</sup> The term AAR (Artificer Action Research) is unique to my research and draws its heritage from for instance Dewey (1897) and its validation from the recent emergence of a multiple of types of Action Research [Hearn et. Al (2009:2-3)] where terms such as EAR (Ethnographic Action Research), NAR (Network Action Research), FAR (Futures or Anticipatory Action Research) and PAR (Participatory Action Research) are adjudged and explicated. And in a further step up in aggregation Action Research can be seen as a subset of Experiential Research and Learning.

Further unlike critical theory which reifies the concept of objective externalised knowledge AR is inherently intersubjective, reflexive and interiorised (in the Wilberian four quadrant sense of the interior world of the researcher is included in the external research project – Wilber (1995), (1997), (2000)).

3. Respect for, and inclusion of, local project related ecologies inc. netweaves, interfaces and ecotones i.e. eco-socio zones of interaction, transition and emergence
4. Hol(on)istic perspective that recognises that everything is connected to everything else (esp. par excellence in an exemplar project) and everything is a holon
5. Causation is 3D, matrixed, layered and dynamic – vertically, horizontally and temporally (causation here is dynamic (set) cp. kinematic (subset)) as well as an integration of physiospheric and noospheric (not only physiological and not only ideational i.e. not only reductionistic and not only theoretic i.e. either and – herein lies the exquisite dilemma for our Western epistem
6. Respective and respecting diversity and difference within diversity inc. recognising the silences, power and techne differentials involved (Foucauldian)
7. Methodological plurality viz. e.g. triangulation (social anthropology, action research and adult/vocational education are the three key macro methodologies of this series)
8. Organic, co-evolutionary Alexanderian approach to ‘D’esign
9. Recognition of and the relationship between tacit, experiential and objective knowledge esp. Artificer heuristics<sup>iii</sup>
10. Glocally emergent protocol
11. Conceptually and Methodologically CP is eclectic and may be directly related to: *an alternative Zeitgeist* revealing itself through technology cp. technology in line with Heidegger’s ‘*passed over perspective lying close but not near*’ which in this series explicates to: **(11a) exoterically Berman’s** participatory consciousness and the *manuary techne of chiro-philosophy* of **Tallis** with the view that there is something actually out there viz. **Husserl’s** phenomenology of *the science of experience* with the *critical realism* of **Bhaskar** and on can engage this eclectic ontology through the past less revealed viz. path less travelled via. *activist science* and *practical reason* inc. habitus and the *re-integration* of the key Western Cartesian dualism of *thinking and doing* of **Bourdieu** as well as the *hand knowledge* of **Wilson**, the *heterotechnic bricolage* of **Ingold**, the *sauvage mode* of scientific thought of the *undomesticated mind* from **Levi-Strauss** the *bush mechanic artificer* and *educational actionista* of **Wildman** and **(11b) transterically** the esoteric/exoteric interface of if I may *participatory pattern language* of ‘D’esign Alexander and the *regenerative design* of Todd **(11c) esoterically** to **the DemiUrge Traditions** of the *Master Artificer*.<sup>iv</sup>

<sup>iii</sup> The expanding research on practical intelligence and tacit knowledge highlights the importance of exploring alternative approaches to understanding the logic base of capabilities associated with fruition in a practical context thorough the application of practical intelligence. Here the Artificer approach to Experiential Learning can help candidates (a) to distinguish relevant from irrelevant information (selective encoding), (b) to integrate information according to rules of thumb (selective combination), (c) to relate the information to prior knowledge or experience (selective comparison), and (d) to use their ingenuity and initiative to respond practically, with what is available, to highly contingent circumstances. See also Hedlund, J., J. Antonakis and R. Sternberg (2002:18-20) for further explication of this challenge.

<sup>iv</sup> For instance: Heidegger (1977) looks to reveal the **Zeitgeist** of our modernity determine by explicating, as it were, the spirit in the machine i.e. technique so to speak and this eBook develops and suggests an *alternative Zeitgeist* i.e. via. techne – a passed over perspective lying close but not near i.e. techne lies in us genetically and yet our culture separates us from that mimetically this is the great alienation of modernity.

**(11a) Exoterically:** *Participatory Consciousness* of Berman (1981) the *Chiro-Philosophy* of Tallis (2003) ‘Phenomenology’ comes from the Greek words *phainómenon*, meaning ‘that which appears’, and *lógos*,

## Conventional Pedagogy

See Appendix G.

### Project Attribute: Project Process ~ Artificer Exemplar Project (AEP):

This is undertaken in line with the participative research protocols explicated in this series. NB: Bush Mechanic - Artificer are synonymous. An utterly crucial aspect of the AEP is the design process, identified in the first eBook as the 'D'esign process or PIDIL (Problematiser, Ideate, Design, Implement, Learn from this process whereas the 'd'esign process refers to blueprints etc that is the 'd' part of the PIDIL process. In the 'D'esign process interface/coherence is crucial between the various components in the project and beyond into its use. Thus by *interface* we are also speaking of efficacious *system coherence* and *concept integration* over the life cycle of the project.

### Project Attribute: Situating AEP

Over the past two hundred and fifty years we have transitioned through a number of ages whereby each builds on the latter in a lattice fractal holon sense. These ages are not mutually exclusive. Thus we have transitioned from the Age Of Industry (AOM) to the Age Of Information (AOI) to the Age Of Knowledge (AOK) to the Age of Imagination (AOIi) and for me to the Age of Imagineering (AOIii) viz. Chiro-pedagogy to the Age Of Wisdom (AOW) – the artificer. This eBook and series seeks to be part of the latter two transitions.

### Project Attribute: Pedagogy Drivers and Scenarios

**Drivers:** From a futures perspective, over the past generation in particular, education is being increasingly driven as an adjunct of the market place and to enhance international

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meaning 'study' see <http://www.phenomenologycenter.org/phenom.htm> In Husserl's conception, phenomenology is primarily concerned with making the structures of consciousness, and the phenomena which appear in acts of consciousness, objects of systematic reflection and analysis. and the phenomenology [Hurrell (1922)] of Bhaskar's consideration of the philosophies of science and social science resulted in the development of *Critical Realism*, a philosophical approach that defends the critical and emancipatory potential of rational (scientific and philosophical) enquiry against both positivist, broadly defined, and 'postmodern' challenges. Here philosophy and social science is a socially situated, but not socially determined one, which maintains the possibility for objective critique to motivate social change, with the ultimate end being a promotion of human freedom Bhaskar (1987). Bourdieu's *activist science* and habitus from Wacquant (2006) and Verweij (2007:11, 14), as well as Bourdieu (1998), *Hand Knowledge* from Wilson (1998), *Heterotechnic Bricolage* from Ingold (1993), the *Savage Bricoleur* as a second moment in scientific thought Levi Strauss (1996), *Bush Mechanic Artificer* and Educational Actionista from Wildman (2009); and

**(11b) Transterically:** the participatory 'D'esign process exemplified by PIDIL 'D'esign process (Table 4 this eBook), Alexander viz. and Alexander (2005) and Alexander, Ishikawa, Silverstein (1977), and *regenerative design* of Todd (1997) and

**(11c) Exoterically** via. the *Esoteric Thesis* Wildman (2002), Wildman and Cundy (2002) and *Chaos Jockey* or *Master Artificer* viz. a Zen Master or a Christos etc, and the *DemiUrgic Manifesting Field of Dreams* (DUF), Wildman (2004), Wildman and Miller (2004), Wildman and Miller (2006).

competitiveness. Simultaneously conventional labour market entry points are disappearing esp. for youth and contingency and part time work are exploding (**economic driver**). So much so that school attendances are falling in many western nations and in Australia and UK for instance for the poorer sections of the community parents are forced to send their children to school on pain of penalty of incarceration or having part of their pension 'quarantined' so it can only be spent on Government 'approved items' (**social driver**).

In this piece I seek to look a generation into the future e.g. 2035-2040. By this time the singularity will have emerged as will artificial life and human cognitive and muscular genetic engineering (**technological driver**) at rates far beyond our best democracies to adjust (**governance driver**).

Clearly if we as Homo Sapiens are to have a chance we have to do some quick and deep learning and thus pedagogy to my mind is absolutely centre stage in this rapid adaptation process (**pedagogy driver**). Yet the very time we need it it's not there if it is it is failing all round us. Well may we ask what went wrong? What is wrong?

To find an answer for this conundrum, I argue, we have to start somewhere else. We can't just yet again modify or seek to optimise pedagogy. We need to determine, as a matter of urgency, whether there are legitimate alternatives to what I call in this eBook, Status Quo Pedagogy. And I believe there is an ancient yet fully modern and holistically futuristic path that of re-evolution of Chiro Pedagogy. It is to an exploration of this lost path or pedagogical path less travelled, indeed an alternative pedagogical scenario that we now turn.

**Scenarios:** From a scenarios perspective then these drivers feed what may be seen as four key Pedagogical Scenarios for the next generation:

**1 More Of The Same** – or Business As Usual - the commodification and commercialisation of knowledge with extant power systems and huge dollops of technology (techno-polis)

*Or*

**2 Back to Basics** – the '3R's, reactionary atavism (the industrial curriculum and egg-crate classroom (NationState-polis)

*Or*

**3 Up Up And Away** – the intensification of the present situation with the collapse of the of higher into vocational education and centralised curriculum and extension of the management of the nation state of all aspects of education inc its extension into indigenous and child care areas for 3-4yr olds. (globo-polis)

*Or*

**4 Transformation** – here we have options such as Neo-humanistic education, glocal education, various spiritual forms of education and I would propose Artificer Education (techne-polis). The latter being the rationale behind this eBook.

### **Project Attribute: Coherency within and among the Artificers Marketing 10P's**

In the overall ontology of Artificering there is a need for coherency within and between the 10P's of: Philosophies, Purview, Paradigms, Praxis, Policies, Plans, Processes, Practices, Project and Pedagogy and even in that order! There are many such mnemonics and I don't seek to make this a key part of this eBook however there is an important aspect of harmonisation embedded in the 10P's that I suggest is worth overviewing at this juncture.

And that is that the Artificering Project writ large needs to have a certain level of consistency, congruence and harmony within and between these key components of this extended 7P's of marketing. That is that: *the underlying philosophy inc. logic base and the futures perspective of the overall project need to challenge constructively the extant Zeitgeist/paradigm of the era through the praxis of policies, plans and processes that generate an efficacious exemplar project which contributes glocally (locally and globally) to the chiro oriented learning of all involved inc. the projects supporters and users as well as the communities in which they are embedded.*

I have committed myself to these ends in this eBook.

# Chapter 1: The Artificer as Handwerker Uber-Konzept (HUK) – a short philo-socio-logical apologia towards an emergent educational actionista

Key aspects of a phenomena that has emerged during the development of this series I call it the Handwerker Uber-Konzept<sup>v</sup> (HUK). In terms of the explications in this series the HUK includes; (HUK1) Soliday's (2007) Relational Ontology links directly to the Artificer writ large (networks) and writ small (piece works with each projects (HUK2) multitudinous interfaces/arthroses/coherences) as well as the predominate importance of interface vertical and horizontal in the context of egalitarianism (low hierarchy ~ high group affiliation). Which in turn links to an emergent trend in social science that it's to seek a vantage/synthesis/systems integration point where old dualism is incorporated into an overarching concept.

It is the contention of this eBook that the Artificer/Bush Mechanic is a (HUK3) praxeological exemplar of such an uber-konzept, with the key agent the Sauvage Artificer (individual or collective) (HUK4). Further learning, which is crucial, is action based and is drawn from the lived life of the student through being expressed as a vertical linked relational system of Kids and Adults Learning (HUK5) which, in evolutionary psychological and educational terms operationalises the ontology that the hand shapes/shaped/is shaping the heard not vice versa (HUK6). Thus and with the social intent is conviviality and mutual aid (HUK7).

For instance Verweij's (2007:7) (HUK8) inherently relational concept of individuality exemplifies this. Further he discusses four sociologists (Pierre Bourdieu, Mary Douglas and Michael Thompson, and Alan Fiske) in seeking., among other things, to integrate dualisms by 'drawing a bigger circle' and developing a way for integrating the dualism in another viewpoint beyond 'either or' to 'either and and'.

Further Verweij (2007:11, 14) validates the Artificer style when he argues that a cumulative or Integrative Sociological Theory (*IST*), and that all sociological theory needs must these days be thus, needs to be: iterative→cumulative (*IST1*), parsimonious (*IST2*), self-reflexive (*IST3*), policy-relevant (*IST4*), (I add – praxis-relevant (*IST5*), situatable in evolutionary studies(*IST6*), and grounded in brain research and evolutionary studies(*IST7*)<sup>vi</sup>. Artificer considerations meet all these prerequisites. And **that these theories need to be applied to develop alternative explanations** of such vital social phenomena as nationalism, religion,

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<sup>v</sup> Handwerker (one who works/crafts with ones hands) is one of the two meanings for work in German the other is arbeit (labour); Uber means 'Over' and I use it here in the sense of Meta; Konzept means Concept in English. So Handwerker Uber Konzept means the Meta-concept or category of handwork.

<sup>vi</sup> From authors such as Doidge (2007) who discusses brain plasticity and the importance of experience in its shaping and reshaping of itself and the importance of experience and practice therein. The latter point leading Gladwell (2008) to posit his 10,000 hour rule whereby he adjudges that experts have devoted on balance this amount of time though practice an experience to perfecting their skill/calling.

revolution, famines, terrorism, **and** I argue action and education viz. the educational actionista of the last chapter in this eBook (Chapt12).

And to the extent that these researchers don't yet extend their analysis to action as for instance a synthesis, this Artificer Concept/Handwerker Konzept may go some small distance in this regard. In particular the Handwerker Konzept is Bourdieuan in that it insist on (HUK9) reflexivity that is the researcher being an Artificer and proactively considering his or her role as 'participant observer' in the research at hand, and that (HUK10) we seek to investigate whole social segments (the disappeared, silenced , voiceless and exiled social domain of the Artificer/Bush Mechanic).

Authors such as Doidge (2007), Verweig (2007) and Lakoff (1999) and this series strongly endorse the view that disembodied reason was an a priori philosophical idea, which lasted 2500 years. This view is now largely discredited and it can't last much longer indeed I can't imagine it lasting another 30 years in serious scientific circles. Philosophy is now, and AWLAYS was, embodied it is, if I may say, a handjob!!

### **At last a philosophical handjob after 2½ Millennia**

For two and a-half millennia, we have been progressively devaluing human life by underestimating the value of human bodies and with it the importance the mundane physical world plays in shaping our cognitive capabilities rather we thought it was the other way round e.g. analytical philosophy, mathematics, logic etc. One can only hope that the next 10 years this tragic and fundamental error is redressed, in which the embodiment of mind will come to be fully appreciated, will be more wholly human – so to speak.

It is to this end that in significant part that this series is devoted. The Bush Mechanic always knew this and the Bush Philosopher (viz. Dewey (1897) always proclaimed this just that no one, in power, was listening. Scientific understanding, like all human understanding, must make use of a conceptual system shaped by our brains and bodies and thus hands. In this a posteriori ground up view of philosophy the Bushy/Artificer is a metaphor i.e. a neural mechanism that allows us to adapt the neural systems used in sensory-motor activity to create forms of what we call abstract reason, which is where 99% of Western philosophy starts – a priori. **From means to ends and realising that we our ends constitute and situate our ends.**

### **The Bushy as Hunza**

In a nutshell if one look at the locations of longevity that existed say in the 1950's as most are now gone through the encroachment of modernity – places like the Himalayan Hunza's where old age began after 100. We may well ask: what then is common? For instance between meat-eating Eskimos, isolated highland Swiss living on rye bread, milk and cheese; isolated Scottish island Celts with a dietary of oat porridge, kale and sea foods; highland central Africans (Malawi) eating sorghum, millet tropical root crops and all sorts of garden vegetables, plus a little meat and dairy, Hunza's living on super food, Fijians living on small

islands in the humid tropics at sea level eating sea foods and garden vegetables. Moser and Solomon (1997:144ff).

We find basically societies cut off from the rest of the globe, autodidacts, where everything but everything is produced DIO (DO It Ourselves), with massive rates of conventional illiteracy, with no 'E'ducation, no conventional schools, no doctors, no hospitals, no nurses, few birth defects, no TV or internet etc. yet all with most of their teeth into old age, intensely nutrient rich food systems, local/endogenous trading systems (NO globalisation) with KAL type Bushy/Artificer learning systems that integrated thinking and doing. In every instance once these folks partake of the spoils of modernity their health patterns quickly erode to become indistinguishable from a typical Western profile.

It is my strongly held view, and if I may, forcefully put position in this eBook that the learning system is a vital part, maybe say even 1/5<sup>th</sup> of this collective outcome. Of prime influence is the nutritional regime, then socio-economic conviviality which includes endogeneity (self contained-ness), local economy and a learning system that braids thinking and doing as well as ingenuity and co-operation. In this regard I propose a threefold dichotomy: (1) nutritionality, (2) conviviality and (3) locality. It is my contention that the bushy approach plays a substantial role in (2) and helps generate (1) viz. growing the food, and adapts to place viz. (3).

### **The most enduring puzzle of Social Science – where is Action in a TOP?**

Efficaciousness in action. All the reviewed research and the author of this eBook – Verweij (2007) - ALL still miss action as a point with which to lens theory – yet how can this yet be omitted from a credible Theory Of Practice (TOP)? Its beyond me action is a unique ontology itself – this insight remains lost to the human sciences. Possibly beyond them as the principal pundits thereof are locked in Kuhn's cognoscenti paradigm whereby the noosphere over writes or trumps the physiosphere. Action - the voiceless one – it is spoken for by thought. This for me is 'The greatest enduring puzzles of social science.

It is to this puzzle that this series, and in particular this eBook, is dedicated. In this regard it is hoped that in some small way these works will play a role in redressing this imbalance and re-establishing action and vocation as practical engagement with the world as a valid and viable and important part of our ontology and thus move towards a sustainable future for our children's children.

### **Including Tr~Action in a COP in the process of emergence**

A Community Of Practice or as I prefer to say in this series a Community Of Practice (COP) and in the context of this series **Communitas Of Praxis** in the context of the bush mechanic is about *learning collectively from individual practices* viz. exemplar projects and the artificers who generate them. Hearn et al (2009:74). This requires a COP to identify, amplify and disseminate and netweave such learning's. This means such a COP needs to conceptualise its task as 'socio-technical' rather than purely 'tehno-scientific'. Such COP's needs must recognise and incorporate collaboration and design across cross-disciplinary silos.

As such a COP system can include blogs, f2f meetings, socio-technical gatherings, field trips etc. So as indicated in the footnotes to the following table Community Androgogy or what maybe called a ParaPedagogy for Artificer Learning. So a COP may be considered an Androgog(log)ical ParaPedagogy.

Here the Bush Mechanics '**Exemplar Project**' can be seen as a concrete assembling proposed 'relationship to the future' or as I may surmise 'relationship tr-action with the future'. Bourdieu (1998:80). A **doxic modality** which is directly perceived and experineced.

Here we can see the process of 'emergence' in progression towards a COP and from a COP in the following: Bush Mechanic Principles - Wheatley (1999) process of emergence]

1. Innovation – proof of concept – Exemplar Project - local
2. Linking with other innovators – Social Holon – *Communitas Of Praxis* (see above)
3. Associating with the big picture – Global Problematique – *Global Systems Of Influence (SOI)*
4. Folding this into the reflexive present – (tr)-Action Learning – *Glocal SOI's*

### **Supporting the Volk Handwerker individually and collectively – a Bushy's Bank**

This will require a peoples bank. Bank not only in the sense of the original formation of the Commonwealth Bank but also in the sense of supportive of 'zones of eco-socio-econo innovation' modelled on enterprise zones of the 1980's e.g. these could be say an artificers or bush mechanics or community economists version of 'islands of peace'.

Here we bring in the idea of an ideas bank even bank as clearing, resourcing, skilling, prototype/exemplar development, house for eco-socio-econo off grid communities. A bank that can provide proof of concept, start up, and meso finance (like the Management Investment Corporations of the 1980's). Meso finance is the step after start up when the first orders etc come in then one cant get the finance to expand quickly enough as one has already hocked ones house so to speak in order to develop the prototype. A bank that helps do what the Reserve Bank of Australia is called on to yet always places full employment second to monetary stability. This eBook maintains the two should be braided like doing and thinking as in Artificer Learning. Further by skilling I mean resourcing Adult and Community Learning not conventional TAFE courses. Also see [http://cecaust.com.au/main.asp?sub=info/mobes/natmobe&id=the\\_australian\\_ad.htm](http://cecaust.com.au/main.asp?sub=info/mobes/natmobe&id=the_australian_ad.htm) .

A national bank, as the Commonwealth Bank was originally established, is crucial in three related monetary measures are necessary, John Curtin argued at Freemantle Town Hall in 1937:

1. National control of credit to ensure its adequacy to maintain and increase employment
2. National control of interest rates, in order to keep to a minimum the monetary and capital costs on production and industry.
3. National direction of investment with the object of assisting in the promotion of a balanced economic development.

Curtin concluded that, ‘If the Government of the Commonwealth deliberately excluded itself from all participation in the making or changing of monetary policy it cannot govern **except in a secondary degree.**’ And this is exactly what we see today (PW). NB a national bank in this scenario is separate to an independent Central Bank.

### **The Dark Side of the Bushy – RIP Bushy – beware the Bushy Police**

Beware the physio-police – Dear readers may I announce the passing of the Bushy. The singularity has arrived in that now as Jose says in yellow the world dived using the springboard of physicality into virtuality.

### ***Homo Artificer overcome by Homo Consumptionista***

Long predicted by pundits such as myself long riled against by the likes of myself we now have, and understood by basically no-one, I submit, the emergence of the first singularity viz. triumph of the noospheric over the physiospheric of through over actions of thinking over doing. The two have been at war since the Greeks first separated them, and intensified by Descartes - now abstract thinking has won. The grand tradition of the hand and its nested system handmade and its nested meta-system physiospheric evolution has been bypassed. New Life 2 Web 2 and its descendents inc. the descendents of email I am using here, have replaced the physical as the locus of authenticity of meaning with the mental the thinking the noospheric the virtual.

This overwhelm-ment is what the bushy artificer has been positioned against at least in a protest – I suspect there never was a contest like this one a real David and Goliath contest – well maybe David’s toenail. A contest with no one backing David indeed no none was even was watching except possibly for us and a few indigenous Einstein’s (deeply serious comment folks). Take the photos now folks (photos of your hands working and thinking in and with your kitchens, sheds, tools, rulers, pencils, scissors, projects you did, your actions your learning’s and so forth) your grandchildren will not know anything of the bushy she won’t even be taught in ancient history courses in New Life 2 schools.

Bushy RIP – disappeared into the tug of the black hole of virtuality which is then disappearing into the singularity.

### ***Chunking-up the Bushy – beware autoDIYgenocide***

If we move up one in a systems theory perspective we find the Bushy as a sub-system holon-nested in a DIY or prosumers whether they be say Bush Mechanics, Artificers, Appropriate Technologists, Transition Towners, Permaculturalists, Community Economy Developers, survivalists etc. I anticipate that a time will come when even these alternatives to the market to *homo consumptionista* so to speak will be seen as threats to the system. Especially if DIY writ large say in the likes of Costa Rica and Cuba etc join forces in a dynamic way say with some emerging Latin American democracies. Then we will see the US imperium move against them and us.

Much has been written about autogenesis (from which this DIY urge emerges – I argue) to what has been called autogenocide (where a Government kills its own – as I am suggesting here) to a word I coined autophillia (as a counterpoint to the former where the people give forms of life to civic space as nested in life in general). <http://hiddenmurder.blogspot.com/> refers. So on one hand we have an emergent autoDIYgenocide and on the other autoDIYphillia.

### ***What Logic Base then do we offer up at the Singularity – DIY or Consumptionista?***

Is this the logic base we offer up on the altar of virtuality church?

Is this it? I suspect so this logic base is what we up load now. It is the ‘Terminator’ or ‘T’ logic base for all our first generation post singularity VL (Virtual Life) entities these emergent Forms Of Life will not have the logic base of the bushy as the basis of their operating systems – maybe you can understand this I doubt few will let alone agree to try to do something. This, however, is what has motivated me from before we met – somewhere in the world I want to be part of an effort to hand up a different logic base to emergent post singularity life forms – a bushy logic base.

Although tongue in cheek this is for me deeply serious issue – for all of us – ultimately the bushy will be declared a disease as it is not part of the emergent virtuality meme that Jose speaks of - can you see it our grandchildren undergoing ‘tool raids’ by the physio-police – class 1 crime ‘in possession – of tool x,y, z – let alone being a ‘tool dealer’ or DIY’ing (already largely illegal if only by virtue of public liability insurance costs, we see the ocean of regulation we all seek to swim in, agency is dangerous to the system – compliance is crucial, enforcers are everywhere e.g.

traffic/tax/GST/corporate/fishing/insurance/council/building/tank/ superannuation police etc.). Our Grandchildren probably won’t know what a tool is and the educational system and peer pressure will ensure that there is no system of ‘tool valorisation’ already I found no one and now here to pass on my father’s plumbing tools – I just look at my grandchildren come home from school and straight in front of virtuality - grrrrrr– thanks for allowing the space for me to say these things please keep these thoughts between us and if you have any links to others of possibly like mind please consider including.

### **The Invisible Aspect of the Bushy**

‘Successful bushies’ don’t announce themselves as such. Nor do they openly criticise or attempt to counter the establishment or its opposition or openly praise each other. Instead successful bushies do their thing by looking as though they’re contributing to said establishments. That is, by quietly yet effectively exemplifying ways and means that show ‘poor people’ how to help themselves in such a way that is seen to take a load off the establishment ‘welfare’ system and eliminate threats to the establishments. This example is also there for anyone who really gives an honest damn about people in general, rich or poor, big or small. In short they are seen as a help rather than a hindrance by the powers-that-be.

Also, they ply an underground, mutual-support network that actively promotes community wellbeing, abundance, awareness and kinship, instead of individualised ‘health, wealth,

wisdom and love.’ Furthermore, Bushies are also thought to be harmless because they embed themselves in no less than humility, compassion, grace and Good Will. This means pragmatically they stay beneath the systems radar usually only dealing in cash, often working on the customer’s premises and doing this as ‘helping a mate’ now working for x or y, using cash accounts only and not having trade or cheque accounts, not registering for an ABN, even avoiding credit cards, mobile phone accounts and where possible tolls. That’s why they are so hard to find, despite the fact that they are still around in considerable numbers and there’s still more emerging, with the usual bushy vigour and determination.

Bushies aren’t out to save the world, either, they are simply there to action-learn how to better cope with life’s inevitable ups and downs and come up all the better for the ride, while sharing the fruits of their experiences with all who venture to actively appreciate the Bushy way. And, they are especially happy being ‘nobodies’ in establishment terms, because that’s their very key to survival.

There is a sense of survival even ploddy ploddy survival which if successful may become thrival, embedded in this invisibility because once one gets down to action these cloaking systems need to be in pace and action generally is very very situational and unsexy.

Another ‘less invisible’ aspect of the bushy is for instance the ‘ladies auxiliary’. Here this auxiliary, which is often craft based and associated with providing meals or fundraising for the principal committee, is off the side, in terms of organisational structure, and less visible though not invisible, compared to the often male dominated valorised ‘management committee’. We see for instance a transition in this visibility in say the Australian Country Women’s Association as they have moved to centre stage with many members now as farmers and they have been able to hold on to and take with them their bushy skills of provisioning. Unfortunately, like so many volunteer organisations today, getting volunteers and new members is proving increasingly challenging.

## **The Bright Side of the Bushy - Bushy Renewal? Logic Base Reprise**

### **[Reprise1] Eco-villages:**

Eco-villages, co-housing, gated-communities etc. while neg-entropic in design can become my view entropic in operation in that they engage diversity and are for ‘un-like minded’ people. In this regard governance is the crucial ingredient.

As an example take a Community Economy as I speak of here is one that seeks to harmonise diversity not centralise conformity. Key aspects of a CE include, eNuffing, artificering, and eldership all wrapped in to an intentional community a replacement for suburbia (which Eco-villages, co-housing and gated communities are not). Eco Villages vary - yet generally do not presume their residents aspire to make a conscious decision to attempt change in economic practice they feed nor their income source. Their LEP (Local Economic Praxis) remains largely unchanged (production, consumption and employment remain largely outside the village. LEP is generally seen as separate from the charter of their village community. There

are exceptions to this - i.e. Sommerville WA.

[http://www.somervilleecovillage.com.au/index.php?option=com\\_content&view=category&layout=blog&id=40&Itemid=50](http://www.somervilleecovillage.com.au/index.php?option=com_content&view=category&layout=blog&id=40&Itemid=50)

*[Reprise 2] Men's Sheds* are also a reprise on the logic-base. They are, however, often compelled to be 'social' and not 'practical' though insurance and other costs, through regulation compliance etc.

### *[Reprise 3] Enter Albert the Artificer playing Dr Techno:*

In our present circumstances technological society emerging two and a half centuries ago out of modernity and the Industrial revolution is consuming so much of raw materials that materially the expanding population simply can't be serviced. In this way the techno-sphere is eating the physiosphere. All bodies have a physiosphere even dead planets or suns or asteroids. This is the physiospheric or atom-spheric construction of us all as Sagan (1980) intimated 'we are all and everything is all space dust'. A more observable outcome of modernity is of course the cannibalisation of the physiosphere and visually the ecosphere of the globe. results from a drastic mismatch between the ecosphere's 'cyclical, conservative, open and self-consistent processes' and the techno-sphere's 'linear, innovative, yet open wrt input yet largely closed wrt output (little reuse or recycling) but ecologically disharmonious processes'.

Who you gonn'a call now waste/muda/gemba busters? Well technology or slow-tech for short is part of the answer – and certainly this will be associated with a population of at most 50% of the 2010 global population as far as glocal carrying capacity is concerned.

Well for me the answer to this question is the foundational need to reconceptualise technology as I have argued extensively in this series to techno-ology and its glocal construct the techno-sphere. I suggest the latter – as deep-techno - would prove to be at least 30% of the answer.

### *[Reprise 4] Econotecture through Open Source Ecology:*

Open Source Ecology's goal and current engagement is: *in creating glocalised right-livelihoods through the application of bottom-up stewardship tools and strategies in order to design and build replicable, open source, modern off-grid resilient communities using open source permaculture, web, mechanical, electrical and other technologies such as artificering, wild-crafting, green-crafting eco(no)-ponic and sustainable value chain holonic management with P2P and COP practices, in order to close resource use loops and reduce muda by reusing rather than recycling resources through working together for the co-operative provision of basic needs and by intergenerational action learning to self-replicate the entire operation at the cost of scrap metal for whole communities – green/brown/blackfield. Here the 'Pharmacist' Artificer as a meme-farmer who seeks to gain tr-action in order to negate some entropy. NB: (1) here artificering can be seen as the sauvage **wild-crafting**, or '**sauvage-crafting**, of detritus of industrialised society, (2) Examples include: city farms, urban agriculture, community establishment, home construction, solar power, hydroponics, tanks, waste busters, Garbage Warriors (Michael Reynold) etc.*

Traditionally in mass production the source of raw materials etc. for and including the manufacturing process is tightly closed with patents and IP constraints etc whereas the destination – coming to a big top shopping centre near you is open. The emergence of Open Source Ecology (OSE) is reversing this. OSE in effect, in ways broadly similar to bioneering, seeks to integrate the small-scale, adaptable distributed manufacturing with sustainable agriculture to produce glocal solutions from ingenuity and scrap. Thus applying the Bush Mechanics Lore on could call this Open Source Artificer DIY Ecology.

[http://openfarmtech.org/index.php?title=Open\\_Source\\_Ecology#Inventing\\_a\\_New\\_Civilization\\_on\\_a\\_Shoestring\\_Budget](http://openfarmtech.org/index.php?title=Open_Source_Ecology#Inventing_a_New_Civilization_on_a_Shoestring_Budget)

The OSE movement is bringing individuals together through the Internet to develop tools that can create replicable ‘resilient communities’. The aim is for people and communities to survive and thrive with a high quality of life that is not dependent on global supply chains, competition and human exploitation and environmental degradation. This requires closing the muda, or waste, loop so reuse rather than recycling is the way forward. One of the main goals of this collaboration is to reduce the cost of building such communities to that of scrap metal and labour.

From the author’s perspective, and (thus) that of this series, the beauty of OSE is that it integrates the human-made physiospheric products with the biosphere worlds into an overarching ‘E’cology. We have to invent a new civility with a shoestring budget. In the late 1950’s in Australia land was about 15% of a land/house package now it is 60% in 50years housing has become unaffordable for the average Australian esp. new families. And up to 80% of Government funds on Indigenous housing has for instance been spent on administration and oncosts. This bureaucratic ecology is simply unaffordable to Gaia and of course to the middle and poorer citizens. This is for the author a crime without equal – a betrayal of our grandchildren’s heritage.

### *[Reprise 5] Logic Base - Mind map and associated concepts:*

**Bushy Logic Base Mind Map:** inc. Autarchy, Peer To Peer (P2P), **Communitas Of Praxis (COP)**, **Wild Crafting**, **Green Crafting**, **Distributed Manufacturing**, **Open Design Manufacturing** (ODM), **Sauvage Crafting**, **Wilding**, **eNuffering** (Enough is Enough), Small is Beautiful/Possible (e.g. see also Schumacher (1974), Homemade (integrating Shed made and Kitchen made), **Artificering**, **Bush Mechanicing**, Neo-subsistence<sup>vii</sup>, **Farmacist**, **Open Source Ecology**, Right Livelihoods - <http://en.wikipedia.org/wiki/Wildcrafting>, Economics for a wriggling universe Wildman (2003), Integral community Economy development IcEd, → Made by Hand → Hand Knowledge → Bushy →DIY/Self Sufficiency/Sustainability →

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<sup>vii</sup> (1) And IGAL (Inter-Generational Action Learning) in this eBook is Kids and Adults trans-gogical or even Kids and Adults Learning viz. KALagological learning inc. Life-wide/long/deep learning viz. Life Wise Learning.

(2)Neo-subsistence is the combination of advanced material and information technologies introduces a new economic option that we call neo-subsistence. This is modern day means to livelihood where **wise use** of advanced technology and ready access to information allows one to spend a small amount of time in self-sufficiency production. **This** leads to a high quality of life where higher skill provides more resources in-house, reduces the need to 'work to make a living,' and opens up time for other pursuits. It is a route to promoting a bioregional economy, which relies more on its own resources rather than uncontrollable global market forces. This promotes glocalisation accountability and reduces the necessity of war.

Home Economics → (individual) self reliance and resiliency → bottom up Prudential Management → Enough is Enough → Community Economy Development → accountability and transparency and equality and democracy → Eldership → Made by Hand → resiliency regenerative design → power-down, peak oil, transition towns etc.

Historical analogies are really important here. In my view, our economic dependence on fossil oil is similar in many, many ways to the economic dependence on slavery as it was growing circa 1800 and the Industrial Revolution. The economic role of slavery once overshadowed everything else. Those who tried to do good by simply ignoring it were in many ways simply ignoring reality. By ignoring the chief obstacle to progress in their time, i.e. the elephant in the room, they were basically ignoring empirical reality. This is what Kuhn calls paradigms. Our thinking then was within the socio economic slavery paradigm whereas now our slavery to oil is what we are silent about.

**Approaching Bourdieu** then we may well benefit from a review of his scientific approach to **Practical Reason** is based on the insight that the deepest logic viz. the ‘logic base’ of the social world can only be grasped if one plunges into the particularity of an empirical grounded reality historically situated (located and dated), as indeed one is himself, with the object of constructing it as a ‘a special case illustrative even exemplar of what is possible’. Bourdieu (1998:2).

Applying these theoretical approach for instance means that in seeking to understand the logic base of the Bush Mechanic I plunge into a particular application of the Bush Mechanics empirical reality viz. I build a boat with a bushy, in Australia as a member of the middle class, from 2003-2008, whereby the boat becomes an exemplar (not perfect) of what is possible in this context. And my grounded research based on this process generated the four principles of the Artificer/Bush Mechanic logic base of (1) **exemplar project** – walk your talk, (2) **social holon** – help others, (3) **global problematique** – save the earth and, (4) **action learning** – talk your walk i.e. a ‘**praxeology of craft practiced as potlatch**’, even ‘**chiro-philosophy**’.

This then for Bourdieu is an instance of ‘**local theory**’ in contradistinction to ‘grand theory’ that is noted for its lack of reference to any empirical reality. In this sense the Exemplar Project is a hermeneutical expression of the particular Zeitgeist.

This logic base then in turn provides the basis for a re-new-ed pedagogy. The crucial issue for Goodman in the declension of education has been the change in its logic base from the humanism and self organising resilience of independent guilds of scholars involved in ‘**practical science**’ and ‘**practical reason**’ to a system of social-engineering for the national economy and polity. Goodman (1962:103).

### *[Reprise 6] The Artificers Creativity as passport to a regenerative design economy*

I think the artificer (specifically the artiste) is almost classless. I have long thought that ‘**creativity**’ will be the way someone can travel through the class system – while maintain working class roots (or seemingly) even like Jackson Pollock, but be loved and accepted by the upper class and in the same breath be accepted by rejecting them. I think it follows the notion of desire desires desire. It seems that in order for this to happen, the

artificer has to capture the imagination; this seems to be done with some association with beauty (art as beauty) rather than only mechanical creativity (artifice as beauty).

What the bushy represents, to me, then is the embodied trans-active avant-garde - trans – a combination of proactive and reactive. I will always and forever more, be a supporter of the avant-garde in the sense of conservative – as in green and liberal. It's how to present it to others and I am certain that day is coming. There is so much depression out there – so many people looking for meaning and meaningful work – that given half a chance the bushies could be viewed as new-age prophets (even though we're not). I even suggested to a Marxist friend that he should rewrite Marx's manifesto (just like we reinvent superman for a new generation – at the box office of course) possibly as a Bottom up Marxist Praxist Manifesto so to speak.

**Go Garbage as the West is forced to become its own Smoky Mountain:** Reuse rather than recycle is an example of building in at the design phase a bushy approach what maybe called 'regenerative design'. Such design also applies in agriculture say wrt permaculture etc. In the Artificer Ontology the regenerative epistemic principle applied in a local economy designed around reuse rather than recycle such may be called a 'garbage or trash or waste or muda economy', sort of 'Smoky mountain' economy. I believe ultimately in the west this will be our annihilation or salvation i.e. our ability to live on our own smoky mountain. We may well all have to become our own 'garbage warriors'.

**Bushy as Garbage Warrior in a 'slow economy':** Such a regenerative economy will be also a 'slow economy' as the value of human labour will in monetary terms need be, my research suggests, cut by some 75% (Australian example 2010 from \$100ph to \$25ph) as discussed in these eBooks. A slow small localised economy's with active populations working in Oikonomia are a counterpoint to a fast big globalised unitary economy with passive populations speculating in Chrematistica. Such an economy focused not on the physical economy but on the financial one rapidly becomes as inflated as the imaginary and virtual demarks of wealth i.e. the derivatives, the futures notes, exploding convertible notes and so forth become. All up some 30+ times the size of the physical global economy which itself is at least three times a sustainable planetary size given footprint analysis. Thus too big to fail yet ultimately threatens to take the whole nation state down with it when the citizens of that nation state can no longer bail out the banks and other large corporations.

Here our rite of passage will be one of resistance to the dominant consume first fix never type approach rather it will be one of braiding of praxis and theoria. An enterprise, even an exemplar project if I may, that is both work and revelation. Thus the EP can become The Word of the World (TWOW) cp. for instance The Word of God (TWOG). Many ancient civilisations practiced this form of praxis inc. Dogon's (central Africa) which it may be argued reflect much of the civilisation of ancient Egypt.

### ***[Reprise 7] From Sustainable Development to Sustainable Retreat:***

Climate change is inevitable, proceeding and even accelerating. With those alarming opening words, British scientist James Lovelock, author of the new book, 'The Vanishing Face of Gaia: A Final Warning' (2009), is delivering a sobering message to large and influential audiences around the world. He says there's nothing we can do now but adapt and survive.

He claims it is too late for sustainable development and says civilization's best strategy is 'sustainable retreat'.

This is then is the intro to the post-apocalyptic world that our grandchildren face – here DIY will mean survival even thrival and basic hand skills will be needed again and across society.

### *[Reprise 8] Lessons from the Depression – a case for Bushy Thrival:*

Lessons from the last Great Depression suggest that the Bush Mechanic and Artificer can survive amply well. Indeed an amalgam of survival and thriving – called thrival.

In the mid 1974, for an assignment in my Micro-Economics course, I interviewed my parents and their friends (about 10 in all) that had gone through the depression (1929-1934) for **economic survival lessons to be learnt for the future from the depression** there from.

Now they are all long dead. These are listed below in green. This was also for an assignment in my micro economics degree (second year 1973) at University of Queensland, ultimately becoming honours with a specialisation in Regional Economics for which this information was used in relation to optimum city/urban settlement size. Little did I know that some 35 years later it would be come relevant again?

There is nothing really earth shattering in the results. On reflection these all have played a strong background influencing role in my upbringing and influence my psychology and approach to life cycle planning to this day and have actively contributed to my decision at 27 to commit to saving enough by 55 to protire. More recent ones I have added, that fit in and from the originals.

They do however point to prudent oikonomia i.e. management of the home (often female – I call this nurturing economics) cp. chrematistics i.e. love of money and speculative gain (often male – I call this the economics of big projects).

These are the main results:

1. **Manage uncertainty upwards** by stepping aside and being able to manage it downwards with two way support outwards and inwards
2. **Abandon all hope those who (are forced to) enter here:** That is do not depend on the Government for anything esp. even understanding the issues let alone doing anything realistic about them. Personal, family and mutual aid will be the only peaceful ways for thrival.
3. **Recognising that 2 is a bit strong** – we can expect, unlike the last depression, coherent Keynesian macro economic stimulus action from Governments such as government spending increases and taxation decreases i.e. pump priming. This however leaves the Government (us) further in debt and if our stimulus dollars are used to bail out large banks etc who created the problem in the first place then we are setting ourselves up for a greater fall in say a few years time as the system returns to Business As Usual
4. **Incorporate thrival in the face of a depression as a vital sector in ones retirement planning**

5. **Have a dependable Income** – become a public servant<sup>1</sup>, get a Govt job, have a practical tradable skill
6. **Grow your own vegetables**, eggs etc. in your back yard – families lived off lots of 500 square meters
7. **Manage and Minimise your debt** and expenditure esp. minimise your debt AND
8. **Understand debt in its broader and deeper senses** of beyond the narrow financial conceptions to include environmental debt, community service
9. **Manage your superannuation** – in its conventionally defined financial terms AND
10. **Understand superannuation in terms of your long term lifestyle** inc. wellbeing and superannuation viz. alternative superannuation and braiding the physical and financial economy
11. **Swap with others**- barter, quid pro quo etc.
12. **Become a bush mechanic** - DIY etc. cp. No. 16
13. **Develop your chiro-dexterity**
14. **Help others** – mutual aid
15. **Don't speculate or gamble or drink** – a bit of Methodist temperance here
16. **Reuse** (e.g. paper and wash plastic bags, save milk bottle tops)
17. **Fix** (don't throw away) – use your ingenuity – recycle – bush mechanic
18. **Save/Keep for a rainy day** (hoard) – don't trust the banks
19. **Don't touch your savings** – they are for a rainy day and keep adding to them
20. **Live frugally** respect suffering and struggle and god and help others
21. **Own your own house** – buy second hand and fix rather than go into debt
22. **Participate in a local economy** - barter, local currency, local market, skills, - kash or kind etc.
23. **Learn from your experiences** – Kids and Adults Learning, participatory learning, learning circles etc
24. **Innovative Fixing and Reusing** – Bush Mechanic lore of innovative fixing was always good, and brought about by necessity (being the mother of invention) [Joan Cook 84; 03-10-2008)] cp. 5
25. **Good Mothering** - the role of mother in those days was critical. Families with a 'good mother' manager encouraging frugality self reliance with compassion and encouragement and help for the needy, always survived, and fathers were thereby

more often than not subsequently inspired and required to also go out and find something to do. [Joan Cook 84; 03-10-2008]

26. **P2P everything:** barter, food, finance, services – outside cash nexus

27. **Establish a Bushy Network** – beneath the radar a genuine ‘mates rates’ P2P system a prototypical community economy based on a rhizome network.

### *[Reprise 9] Bushy - Dinosaur or Dynasoar?*

Many indeed most people today, and indeed most if not all forms of pedagogy, see the bushy as pitiful as a lost cause at best a dinosaur. She has no network, no recognised pedagogy, no hit songs, no UTube Channel and so forth. So by bushy now let's get down to business.

But Wait – there is still something out there and it tugs at something in here.... muffled, egocentric, eccentric and so forth, a cacophony not a symphony. This is undeniable in sheds on benches on kitchen tables in stables and disused buildings with old machinery repairs evident new science new knowledge our tomorrow emerges. Dare we look for the Dynasoar<sup>viii</sup> amongst the Dinosaurs? This for me is the Bushy's ultimate reprise.

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<sup>viii</sup> **The Dynasoar actually lived called the X-20 Dyna-Soar** (Dynamic Soarer) was a United States Air Force (USAF) program to develop a space-plane-shuttle like vehicle that predated the shuttle by decades. It could be used for a variety of military missions, including reconnaissance, bombing, space rescue, satellite maintenance, and sabotage of enemy satellites. The program ran from 24 October 1957–10 December 1963, cost US\$660 million, and was cancelled just after spacecraft construction had begun.

Other spacecraft under development at the time, such as Mercury or Vostok, were based on space capsules which returned on ballistic re-entry profiles. Dyna-Soar was much more like the much later Space Shuttle: it could not only be boosted and travel to distant targets at the speed of an intercontinental ballistic missile, it was designed to glide to earth like an airplane under the control of the pilot. It could land at an airfield, rather than simply falling to earth and landing with a parachute. Dyna-Soar could also reach earth orbit, like Mercury or Gemini. This made Dyna-Soar far more advanced in concept than the other human spaceflight missions of the period. Data collected during the X-20 program would prove useful in designing the Space Shuttle. The much larger Shuttle would also be boosted into orbit by large rockets for launch and the final design would also pick delta wings for controlled landings, but it (and a similar Soviet design, Buran) would not fly until decades after the X-20 cancellation.

The development of Dyna Soar can be traced back to Eugen Sänger's Silbervogel (silver bird), a German bomber project of World War II. The concept was to create a rocket-powered bomber that could travel vast distances by gliding to its target after being boosted to high speed (>5.5 km/s) and high altitude (50–150 km) by A-4 or A-9 rocket engines. [ <http://en.wikipedia.org/wiki/Silbervogel> ]

Essentially, these rocket engines would place the vehicle onto an exo-atmospheric intercontinental ballistic missile-like trajectory and then fall away. However, when the vehicle re-entered the atmosphere, instead of fully re-entering, bleeding off its speed and landing, the vehicle would use its wings and some of its speed to generate lift and bounce the vehicle back into space again. This would repeat until the speed was low enough that the pilot of the vehicle would need to pick a landing spot and glide the vehicle to a landing. This use of hypersonic atmospheric lift meant that the vehicle could greatly extend its range over a ballistic trajectory using the same engines.

Such boost-glide-bounce systems could potentially strike at targets/travel to destinations anywhere in the world (so called ‘antipodal bombers’) at hypersonic speeds, be very difficult to intercept, and the aircraft itself could be small and lightly armed, compared to a typical heavy bomber. In addition, a boost-glide aircraft may be recoverable, acting as a manned bomber, or as an unmanned non-recoverable missile. [ [http://en.wikipedia.org/wiki/X-20\\_Dyna-Soar](http://en.wikipedia.org/wiki/X-20_Dyna-Soar) ]

The Bushy's dilemma even Achilles heel, yet simultaneously its greatest strength as this allows it to co-exist with 'the State', then is *Action-at-a-distance (including distance of time) constitutes the magic of the state, the nervous system of control* – to be distributed as Bushy's are and have no network is to be invisible to the State yet simultaneously unable to generate this action-at-a-distance.

### **[Reprise 10] From Local Knowledge to Common Sense and Back:**

For Geertz local knowledge can be codified as local common sense. And in this regards he compares such in Hindi, Buddhist and Muslim senses. It is I acknowledge somewhat of a broad reach to conflate this erudite project with my polyphonic one on the Bush Mechanic there are however several areas of potential fruitful overlap and I attempt to outline these below.

#### **About Common Sense**

Various conceptions of Common Sense

(1) Ultra Vires: CS is what's left over when our articulated sorts of symbol systems (such as science, art, ideology, law, religion, technology, mathematics, even nowadays ethics and epistemology) have exhausted their tasks.

(2) 'The ordinary ability to keep ourselves from being imposed upon by gross contradictions palpable inconsistencies and unmasked impostures'. 1726 book the 'Secret History of the University of Oxford'.

(3) Paradigmatic form of vernacular or folk wisdom. Geertz (2000:90-93)

Common Sense then is what all these articulated symbol systems rest on a sense that allow us to tell the difference between chalk and cheese, a hawk from a handsaw, ones ass from ones elbow, thinness from blandness and so on, differences that coherent interactive life utterly depends on each day in every way.

Geertz's **hermeneutical circle** for addressing Local Knowledge is 'a continuous dialectical tacking between the most local of local detail and the most global of global structure in such a way as to bring them into simultaneous view' and a key way of doing this is through the comparison of the incomparable 'common sense' or local knowledges. Geertz (2000:69).

#### **Attributes of Common Sense (CS)**

To understand Local Knowledge one has, according to Geertz (2000:92-93) to touch CS (as a cultural system), he argues that one cannot do so by cataloguing its content, or by sketching out its logical structure, or by summing up its common substantive conclusions. Rather one has to seek to distil its tone and temper, its ability to form our intellectual and metaphorical predicates such as 'thinness' to remind a people of what they really know and what they really believe together and to a large extent who they really are, and the ground on which the untravelled side road on which we may encounter CS. By dialoguing the various incomparable local knowledge's we approach a type of CS (logic base!) truth underlying the apparently immethodical cacophony of everyday life. 161, 233.

It is my strong contention that the Bush Mechanic encompasses many on these ‘non scientific’ attributes. **In fact science in some ways maybe defined as a counterpoint to each of these identifiers AND in turn each of these identifiers maybe applied authentically to the exemplar Bush Mechanic project. This then is my reprise** – the imperative for common sense in human society makes it imperative that the Bush Mechanic can survive.

Geertz takes a sociological/anthropological look at ‘local knowledge’ and identifies ‘common sense’ in all its guises as a crucial aspect of such ‘knowledges’. In this regard he comes up with the following key identifiers of Common Sense, viz: Geertz (2000:85-93, 161, 233)

**1 Naturalness** – ‘of course’, ‘I see xyz’ – the logic of common wisdom even old wives tales etc.

**2 Practicalness** – in a volk sagacity sense – the project won’t float, it just doesn’t add up

**3 Im-methodicalness/ad hoc** – to encompass the intractable diversity of the experience of the lived life which thus requires

**4 Comparing incomparables** such as happens a thousand times each day in the lived life

**5 Accessibleness** – to all citizens in comprehension and expression collectively and personally

**6 Earthiness/Groundedness**

**7 Ingenerate** – indigenous (natural), innate, endogenous (from within) not generated externally

**8 Synergistic** and relational not and unique and individual

**Sacred and Profane Knowledge – sacred activism, the even paganism:** Thus in the context of this eBook so called ‘scholarly’ knowledge is conventionally also be seen as sacred or theoretical or scientific or cognitive/thinking or ‘T’ruth whereas ‘profane’ knowledge may also be seen as lived life or Volk or practical or common sense knowledge or actional/doing or at best ‘t’ruth. While accepting the significance of this dichotomy, one needs, I submit, to be able to ‘think’ beyond the practical and beyond the here and now. I argue, however that the Volk has such abstract or sacred thinking embedded within it, such as the ancient Greek word prohairesis – thinking (and acting – PW) ahead wisely, and phronesis – wise acting, together giving us what maybe called ‘sacred activism’ or ‘sacred profanity’ or ‘sacred paganism’ or even ‘pagan activism’ or ‘depth artificering’ or ‘sadvipra’ (see separate section). There are the two moments abstract and actional like two sides of the one coin, one a reflection of the other so to speak. That is not sacred or profane but sacred and profane i.e. ‘either and’ not ‘either or’.

**Knowledge is Social:** Further, in a humble way, I challenge Descartes’ view that knowledge is based in the individual to side with Durkheim that knowledge inc. theoretical (as practical knowledge is undeniably social) is socially not individually based and is at essence a social phenomenon not an individual one. Young (2006:195). Knowledge, sacred and profane, here is synchronic and synergistic, networked and nested rather than diachronic and individualistic and unitary and unique. In this sense knowledge never was about individual bums on individual seats each looking at the same page in the same text book from the same curriculum to be tested individually with individual questions about primarily sacred or cognitive knowledge.

Thus knowledge always was and always will be about ‘we not me’. Thus knowledge is social and is thus the outcome of collective or social human agency and thus knowledge is temporary and consequently always and everywhere part of history thus science is philosophical and scientific knowledge is historical and thus ‘T’ruth is relational. Young (2006:208). So speaking pedagogically wise we need a pedagogy of the social even socio-practical construction of knowledge.

***[Reprise 11] The dis-eases of technique ~ of separation of us from (our) nature:***

I submit that a number of sicknesses in the contemporary Western world can be traced to the transition from pre-modern techne to the modern technique. Such a separation has been widely and deeply discussed in this eBook and the rest of this series. Here we will simply identify in passing some diseases of ennui of alienation of nihilism of our Zeitgeist that are, I submit, at least in significant part produced by the triumph of head over hand of technique over technique.

Nihilism’ occurs when we no longer ask the ontological question concerning the being of beings—of how and why beings indeed ontology manifest or show up *as* they do—and are instead totally occupied with consuming, exchanging, and producing things. Thus the paradox of accelerated modern-day living is that it does not result in exhilarating satisfaction but often with a feeling of being defeated and overwhelmed. So alongside conspicuous consumption, or as it may be called the ‘statusphere’, we have conspicuous boredom. And, I submit, this boredom can play a role in the following ‘dis-eases’. Maybe we need an ‘unconsumption nostatusphere’? Unconsumption is another take on ‘eNuffing’ viz. enough is enough. Wildman, Ploughman, Wyatt and Taylor (2009).

For instance according to Ako (2007:24), Heidegger (1938) and others we can identify:

[A] **Hurry Up Sickness** can be diagnosed if the subject suffers from, among other things and

[B] **Dial It Up Disease** viz. the ‘deterioration of the personality, marked primarily by loss of interest in aspects of life except those connected with achievement of goals and by a preoccupation with numbers, with a growing tendency to evaluate life in terms of quantity rather than quality’

[C] **Racing Mind Syndrome**, characterized by rapid, shifting thoughts that gradually erode the ability to focus and concentrate and create disruption of sleep’

[D] **Forgetting Today Because of Remembering Tomorrow Sickness**’ loss of ability to accumulate or assimilate pleasant memories, mainly due to either preoccupation with future events or rumination about past events, with little attention to the present’

[E] **Turbo Today Disease** – whereby we get hooked on speed and rapidity of changes in consumption and relationships, inc. products and media so that newscast scenes become less than three second and essentially become subliminal

[F] **Silence of the Changes Sickness** – as the rate of change increases towards a certain threshold that exceeds our ability to respond, collectively and individually, we reach a point

where it all goes silent – the silent scream. Modis (2003). Thrown into a harried world, we are so nervous, so sped up that we become indifferent, unable to qualitatively distinguish which choices, commitments, and obligations are significant or matter to us. So conspicuous consumption has its enantiodromiac homologue of private even boredom that requires entertainment as passive recipient (PW)

[G] **Humpty Dumpty Syndrome** or the Cant Fit Together Syndrome - with the ‘silo-like’ Yang technology in use that generate razzle dazzle individual products these don’t fit together that is there is no Yin technology to interface/cohere these components. Interface skill sets are not valued rather specialisations abound and continue and deepen

[H] **No Yin’s here were all up for big ticket Yang’s.** Years ago in the early 1990’s when I was doing field research for my doctorate I made an empirical field observation when I noticed that the vast majority of the practitioner folks I was talking to who in my view, really knew their stuff, nearly 3/4ers were women. At the same time I literally saw our Australian Prime Minister at the time say ‘I want my Government to be known as the Government of Big Projects’. After a fair bit of head scratching and research into eco-feminism and liberation theology and New Paradigm Research (all rather risqué at the time and all provide a pedagogy that challenges the conventional mind body split as does Artificer Learning, thus Eros enters the learning cycle even being considered the material for braiding thinking and doing) the penny finally dropped. Males generally don’t like the little ticket items we (as I am a male) as our ex-PM said ‘big projects’. Smaller scale projects are pilots that need nurturing so it’s the Yin energy in my view that can carry this forward. And thus more houses today have kitchens but not sheds!!!!

[I] **No DIY Here Were Consumers excuse** – there is no room or cost ability to innovate or DIY or prototype or custom build/cook/make as wage levels and consumerism has deskilled the citizen to the stage where cooking is a spectator sport and houses are now routinely built without kitchens or sheds

[J] **No DIY Here it’s not on our Computer Syndrome** – innovation requires a broad range of parts on a single or small batch basis. This is no longer economic and so local responses such as say having 100 trays of individual brass fittings is no longer economically possible and local responses can’t be entered on the national computer system so DIY is doubly condemned.

[K] **Not-being-able-to-bear the Stillness Disease** i.e. **I don’t like sailing because it’s too quiet.**

*[It is] the mania for what is surprising, for what immediately sweeps [us] away and impresses [us], again and again and in different ways.* Emad & Maly (1999: 84).

This may be counterpointed with an experience I had in sailing in 1978 where we were sailing between mainland Aust and a reasonably close buy off shore island (Gladstone to Facing

Island – on the mid Queensland coast). I was deck hand and this was one of the first times I had sailed in my life and certainly a 21ft boat cp. a dingy. During the trip the Skipper Max said ‘listen what’s that?’ I thought immediately something had hit the boat and we were in grave danger so I listened intently for crunching and shuddering noises. All I heard was the sailing because it was too quiet and I got even more concerned sure it wasn’t just the rustling of the sails or the soft gurgle of the water as we passed through it that I was supposed to hear. After about 30 seconds of this quietness he turned to me and said ‘this silence is living you are listening to the stuff of life’. I have never forgotten this lesson.

On that day silence taught me much.

These individual dis-eases may be seen as themselves symptomatic of a broader mania which is exhibited in everyday body compartments that are shaped by what social psychologist Levine (1977) calls ‘time urgency’. Levine suggests the **accelerated self** can be identified as one who continually glances at his/her watch and checks his/her cell phone; speaks quickly and becomes frustrated when someone takes too long to make a point; eats, walks and drives fast and becomes angry when caught in slow moving traffic; is compulsively punctual and follows lists and schedules to manage his/her day; and finds it difficult to wait in line or sit still without something or someone to distract or occupy him/her.

Here we can see the potential of this style of dis-ease of the ‘speeded up self’ to embrace ‘diseases’ such as ADHD, Panic Attacks etc. – pathologies of modernity where in the self is seen as individual and objects are seen as separate discrete. So that Levine (1977:22) can argue that psychology and I would add modern media with its two second sound and basically subliminal video bites add to this fragmentation and acceleration of self. Almost a metaphor of the ever expanding entropic vision of the universe. All are a reaction of self and soul to the ‘speeded up nature of modernity’s Zeitgeist. This disease can prevent us listening to hearing or allowing Heidegger’s Hermeneutic established around *aletheia* – the emerging the revealing of the new under and through the patina of the old.

These diseases represent the Elephant in our modern day ‘Green’ Room

Before we can move into the other reprise areas such as Open Source Ecology I argue strongly that the reality of these diseases MUST be acknowledged and respected. If ignored they will inevitably undermine any positive change initiatives on the surface.

From Noospheric Co-Counselling to Co-Artificering to Techneque Co-Mentoring Smart Mobs

In this regard and in response there to I argue we need to ‘work it out’ rather than ‘think it through’ – artificering rather than counselling. Here we can start in a tripartite manner (1) by recognising the artificer within and those areas in one’s life where this still bubbles to the surface, (2) understand the situatedness of the artificer inc. the introduction of techne and, (3) ‘c’o-mentoring with an established artificer and ultimately (4) internet assisted ‘C’o-mentoring with one’s peers in what may be called ‘smart mobs’. Then (5) bringing these together in the middle of the triangle so to speak in a ‘Zen’ moment el ar Zen and the Art of Ingenuity so to speak – the principal reference in this series.

'World Without Weapons' workshops to include 'World With Artifice'

Like deep ecology wails at the loss of habitat and deep peace shakes at the powerlessness of the citizen in front of an ICBM, deep artificering rages at the loss of techne. The peace movement in the World Without Weapons workshops through Joanna Macy found that before people could undertake activism or even begin to plan therefore participants had to be allowed to feed and embrace and acknowledge their powerlessness and grieve for what had been taken from them.

### *[Reprise 12] The Reprise of the Reprise of the Logic Base from 4 to 6 Principles*

The Past Decade since this research Project Started: In the decade since establishing the original basic four building blocks of the Artificers Logic base in 2001, and as I have continued to work with Artificers and spend time with them face to face and electronically in order to attempt some sort of 'empathic' connection to walk at least a few steps in one of their shoes so to speak. I have continued to keep field notes and have sought to apply Grounded Theory principles there too much like in the earlier primary research phase yet to a much less extensive extent.

In both instances the original research and my reprise, herein reported and summarised, I have sought to exegete the meaning/logic base of the phenomena of the Bush Mechanic. It may be said that rather I have committed the crime of any retrospective research system, indeed possibly of any Qualitative Research system, that of eisegesis (reading into the text what one wants to be there and then claiming a big discovery cp. exegesis drawing out of the (con)text the authentic meaning for the task at hand). To counter this I adduce that I have sought rigour through detailed and methodological research and documentation and publishing and praxis and addressing critiques thereof. Yet at the end of the day the authentic research question has to come from within and without the researcher and thus eisegesis and exegesis are braided somewhat. Indeed, as an example, I suggest that poetry itself is largely an eisegetical practice both for the poet and her reader. I suggest the **eisegesis|exegesis balance** would be herein 20|80 respectively, and in conventional academic work around 10|90.

Indeed in my role as academic I would encourage my students to do an exoteric (exegetical) conventional dissertation and esoteric (eisegetical) dissertation, with the latter being of course vastly shorter and often non textual to allow for the exigencies of time in the overall thesis writing task. Wildman and Cundy (2002). Here I suggest the balance would be 90|10. To an extent this eBook includes both aspects though primarily the latter.

**Two additional Principles have emerged:** In this regard there have emerged two additional aspects of the Logic Base that are inherent in the original four, in particular Principle 1, yet have been emphasised separately by several Artificers I have studied in the past decade and that as such I submit warrant inclusion in the reprised Artificer Logic Base. For instance since the Bush Mechanic does the Exemplar Project it becomes 'the'I'rs' and thus the outer-inner divide is breached just as the harmonisation principle is utterly basic to an efficacious Exemplar Project as by definition there are many dimensions/dots needed to be balanced/joined. Nevertheless with due consideration these two principles are herein excised from Principle 1 and included here in their own regard.

These further two patterns are embedded in, yet somewhat discrete from, the original fourfold logic base. These are: (1) the link between the exemplar project and the Artificer's inner world and (2) for the artificer the exemplar project discovery her 'life journey needs to ride in tandem with her bliss'. For me this means one's self can be explored through the Exemplar Project and secondly, one's lived life in the external world needs to harmonise with one's lived life in one's internal world. It has been my experience that these two embedded principles, embedded in each of the original four, become particularly individualised as one moves along the craft → art spectrum.

Crucially these six principles express just how **contextual the Exemplar Project is**. Indeed a meta logic base to these six I submit is the overall context of the Artificer such that the 'urge to artifice' would be expressed differently in different social and environmental contexts.<sup>ix</sup>

These additional principles are included below as principles 2 and 5.

### *Artificer Explicated: The 6 Principles of the Logic Base and 12 Processes*

#### The Six Principles of Bush Mechanics Logic Base

In line with phase 2 of my decade long Bush Mechanic Research Project as one moves from Principle 1 to 6 and back again, one moves, as it were, as if one was on the surface of a moving Mobius strip manner.

##### 1. Exemplar Project Principle

Learning from the doing of the bush mechanic is captured and preserved in 'exemplar projects'. The bush mechanic's textbook is learning enacted where in thinking and doing are braided together in the EP that exists in the 'real' or physical world not only in the mind. These are physiospheric projects, historically called 'journeyman's pieces' as well as the systems that generate them. The Artificer is also aware of the local economic context into which her or his EP fits. [eBook I – Grounded Research].

##### 2. Inner World Principle

Such that the exemplar project can be seen as acting as what may be called a psychonautical journey into the

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<sup>ix</sup> As an aside this urge to artifice can be seen as in line with the unanalysable directly intuited principles of which the first '(1) the power and urge to originate our own acts' is from the Scottish School of Common Sense (or Tacit Reason) of the early 1800's which is strongly linked to the Romantic Movement in England and the Idealist movement in Germany at about the same time. The other (deliberately) 'un-analyse-able', 'un-integrate-able' and 'un-systematisation-al' principles are: (2) the substantive continuity of human identity, (3) the reality of commonsense moral values and our ability to perceive and act on them and (4) the reality of the external world (of which we can have unmediated experience vi. our acts). Empiricism on the other hand rejects the view that unmediated experience of the external world is possible, particularly any 'system' of metaphysics that contradicts 'common sense'. Lockridge (1989:336).

Common Sense then may be called el ar Hazlitt [Lockridge (1989:337)] 'tacit reason which is a tact in the practical affairs of life a sense of what is real and what is not. It is a kind of unconscious mental instinct that feels the air of truth and propriety as the fingers feel objects of touch'. Common sense then is the intuitive faculty which is the just result of the sum-total of such unconscious impression in the ordinary occurrences of life as they are treasured up in the memory and called out by the occasion.

In line with this Common Sense Approach, which I suggest incorporates Intelligent Narrative Pay etc., Theory may be defined as: assigning the reasons or principles according to which causes and effects are connected together'. Hazlitt quoted in Lockridge (1989:336).

inner or 'I' realms of being – an exploration, manifestation, reification even 'self-realisation' of self so to speak. [Appendix B and embedded in the process of the EP].

### 3. Social Holon Principle

The exemplar project is seen by the bush mechanic as an example of a social holon viz. solidarity and mutual aid -- a self-organising socio-economic nested system which is simultaneously part and whole, hierarchically situated yet autonomous, using fixed rules yet flexible strategies, such as the heart in the circulation system of our body. [eBook I – Grounded Research].

### 4. Global Problematique Principle

The Big-Picture here the Bush Mechanic sees herself acting accountably as a global citizen responding locally i.e. glocal, concretely, participatively, anticipatively and proactively. Her work blends internal and external ethics, for example, redefining psychological markers such as income, status, time and task etc. [eBook I – Grounded Research].

### 5. Integral Harmonisation Principle

Here the exemplar project represents a harmonisation of (a) the various sub components of the EP and crucially (b) the Inner and Outer Worlds of the Artificer with the inner (cultural) and outer (environmental/social) worlds of the Artificer viz. the above principles. This could also be called the interface or network or netweave or (4 quadrant) integral principle and refers to the harmonisation of diversity rather than the centralisation of conformity, i.e. synthesis (left brain) cp. analysis (right brain). [Interface in eBook I].

### 6. Deep Learning Principle

Learning, Yearning, Earning and Concerning together with all of the above - including learning from and within the engagement of establishing the exemplar project and its place within the lived life of the Artificer viz. Life Wise Learning (10years, 10000hrs) where thinking and doing are braided. [eBook I – Grounded Research].

**ALB1** (Artificer Logic Base 1) 10-08-2010 - V6; comm: 15-04-2001 – V1. Wildman (2005:7).

## *The Twelve Processes of Bush Mechanics*

Next we can seek to identify the processes common to each of these principles for stations so to speak, such that each principle though somewhat discrete contains commonalities i.e. processes in common, to greater or lesser extent, in each of these principles. These commonalities have emerged from my noospheric and physiospheric research undertaken in the past decade on this topic. These are more speculative and emerge primarily from my noospheric research and reading and thus are presented separately as they are emergent for me and are not emergent through the use of a specific social science research protocol such as Grounded Theory.

### 1. Praxis ☉ Process

Praxis is the axis mundi of the artificer and is present in each of the above principles [Ch3 Reflexive ☉ praxis, in this eBook].

### 2. Sauvage Et Al Approach Process

The Artificer/Bush Mechanic individually and collectively manifests a direct attitude largely unnecessarily complicated by culture more even like a wildflower in the 'original' sense. In the Romantic genera this is the realm of sensibility, of common sense of direct apperception of meaning, intent and necessity. The sauvage Artificer carry's this approach to all her applications and indeed to life in general. [Ch8, AppB (Romantic Sauvage) in this eBook].

### 3. Techne In Hand Process

Socio economic processes that are designed to elicit human involvement based on chiro-dexterity. Here for the artificer *chiro basis cranio* or *chiro ante cognito* [AppA in this eBook].

### 4. Agency with intent → Process

The belief that one can act on ones environment in a beneficial manner and towards a prospective positive individual and collective future is an utterly crucial process in all aspects of artificering. This is deeply dependent on 'self-realisation'. [Ch1 in this eBook].

### 5. Contingent? Where-ever For-ever Process

The recognition that we live in a highly contingent (uncertain) world wherein causation is seldom linear and always layered and ultimately approaches the mysterium of human unknowing. This process awareness underpins the Artificers task that is to bring a certain dependable level of causality in an ocean of contingency. Contingency beneath us above us and beside us, yet somehow the EP must work. [Appendix B in this eBook].

### 6. Ingenuity Plus

Here we have the outworking of individual and collective imaginations and their expression in creativity. I call it imagination and its expression in creativity. This is the heart of the Bushy design process and links the head and the hand. [Ch8 in this eBook].

### 7. 'D'esign ☉ Process

Incorporating the PIDIL process in all stages/principles of the bush mechanic moving towards generating an Exemplar Project that links local and global design considerations. [eBook I, Ch1 & App B in this eBook].

### 8. Think ⇄ Do Process

Thinking and doing as braided together, as strands in a rope and not as mutually exclusive ends of an adversarial 'either or' dichotomy [Chapter 1 and throughout both eBooks].

### 9. Context ∞ Content Process

The Exemplar Project (content) is deeply contextual and then vice versa such that one 'mobius's' the other. [Exemplar Project in eBook I].

## 10. Myth ↔ Math Process

As per the Math Myth diagram whereby the generative dialectical tension between the various contraries' therein generate an 'either and' balance [Ch11 esp. Myth Math Figure in this eBook].

## 11. TBA

## 12. Emergent'cy Process

Emergent case by case and project by project process specific to the actual EP and non predictable by any number of eBooks.

**ALB2** (Artificer Logic Base 2) 10-09-2010 – V3; comm: 03-08-2010.

**Table: ALBM ~ Artificer Logic Base Matrix Taxonomy: 6 Principles and 12 Processes of the Bush Mechanic**

<b>Principles → /Processes ↓</b>	<b>1. EP</b>	<b>2. IW</b>	<b>3. SH</b>	<b>4. GP</b>	<b>5. IH</b>	<b>6. DL</b>
<b>1. Praxis plus</b>	EP Itself	Reflexive	Affinity Group	Futures Group	Zen Zing	Fitness In Use
<b>2. Sauvage et al</b>	Prototype/Proof of Concept	Uncluttered by culture, strong 'chiro' orientation	Camaraderie & enough is enough i.e. sustainability	Eclectic individual analysis	Project coherence & efficacy though 'hands on' 'd'esign, expertise discipline, learning, techne & love	Prohairesis – acting ahead wisely = eldership
<b>3. Techne in hand</b>	Chiro Dexterity	Inner Dialogue	Practical help for 'O'thers	Chiro Gaia	Singing Tool	Learning Fool
<b>4. Agency with intent</b>	Artificer	Psychonaut	Service Club Respect, inclusion, extension in EP	Global com	Meditation/Service	Aum - eastern chant symbolising the eternal moment
<b>5. Contingent Forever</b>	Risk Analysis	No gain w/out pain	Moral & social respect & diffs resolved in EP	Cultural & Epistemic diffs integrated in EP	Ethical, Practical, Social, Environ cont Balance in EP	Deep provisionality of all K
<b>6. Ingenuity plus</b>	Creativity	Self-realisation	Empathy/Love of the 'other'	EP as a: 1 lens for the GP. 2 marriage proposal to Gaia	Organic design & devt	Imagination
<b>7. 'D'esign</b>	PIDIL - Bottom up – replicability not cookie cutter	Suck it and See(r)	Loosely coupled collab, hobby scientist, individ	Apologetics, & public accountability - Assist Gaia from ones EP	H embedded in EP – the Zinging Project = Glocality+	Synchronicity & emergent'cy are key design (PIDIL) features. From 'either or' to 'either and'
<b>8. Think ⇌ Do</b>	Braided physiospherically	Braided: Inner & Outer Journeys braid	Braided: Action strategic	Braided: Action meta-strategic	Braided: Action Synergistic/neg-entropic	Braided: Pedagogy braids to lived life
<b>9. C'ext ↔ C'ent</b>	Inherent in EP	Inherent	Two way assist	Accountability C'ent → C'ext	720deg CC integration	CC Interactivity
<b>10. Myth ◇ Math</b>	Blueprint & the story behind it. Calcs & beauty in the EP	The stations of the inner journey that the EP takes one on	Shed bench story & discussions	How the EP will +ively impact the GP	Dialectic Dialogue/Contraries	Exp L
<b>11. TBA</b>						
<b>12. Emergent'cy</b>	Synergistic/organic /incremental design	Develop the '3D' TV of one's mind	Mates chiro network of care & concern	UTubes vignettes – spread the word/world	Mutual co-arising i.e. learnings & insights & enhancements emerge during EP	Aum inc. emergency & the eternal moment
						←↑LWL (10yrs/100000hrs)

**Source:** P Wildman 08-2010. V4. Emergency – the state of emergence possible in an emergency. **NB:** Related Mnemonics:

**NB1:** These are an adaption and extension of the 7P's of marketing a product inc.: Product, Price, Place, Promotion, People, process and Physical Evidence. In the overall ontology of Artificering there is a need for coherency within and between the 10P's of: (1) Philosophies, (2) Purview, (3) Paradigms, (4) Praxis, (5) Policies, (6) Plans, (7) Processes, (8) Practices, (9) Project and (10) Pedagogy and even in that order! There are many such mnemonics and I don't seek to make this a key part of this eBook however there is an important aspect of harmonisation embedded in the 10P's that I suggest is worth over-viewing at this juncture.

**NB2:** The 5 additional characteristics of marketing a service (5C's) include: (1) Lack of ownership, (2) Intangibility, (3) Inseparability, (4) Perishability, (5) Heterogeneity. Generally managing services are more complicated than managing products which can be standardised, however to standardise a service is far more difficult as there are more proactive contingent factors to manage than with a product. **NB2:** And that is that the Artificering Project writ large needs to have a certain level of consistency, congruence and harmony within and between these key components of this extended 7P's of marketing. That is 'the underlying philosophy inc. logic base and the futures perspective of the overall project need to challenge constructively the extant Zeitgeist/paradigm of the era through the praxis of policies, plans and processes that generate an efficacious exemplar project which contributes glocally (locally and globally) to the chiro oriented learning of all involved inc. the projects supporters and users as well as the communities in which they are embedded'.

**NB3:** Although I have been cognisant of these 10P's and 5Cs' in drawing up this eBook, detailed discussion thereof remain outside its scope.

## Chapter 2: Learning Taxonomy: Life Long Learning cp. Life Wide Learning

**Table 1:** A learning taxonomy incorporating Life-Long Learning (LLL) and Life-Wide Learning (LWL) axes

		← Life-Wide Learning Spectrum (LWL) →				
		Formal i.e.		Non-formal	Informal	
		Accredited	Non-accredited			
		Pedagogy	Androgogy			
↑ Life-Long Learning (LLL)	Early Childhood	Cram schools - Japan	CCC's	Relatives, Aunts, Uncles, Grandparents	Families	
	P E D A G O G Y	Pre Schools	CCC staff & PS already part of a school	PreSchools (PS)&CCC's Directors meetings	ChildCare centres	Families
		Primary Schools	Primary Schools	Sport/REd/Phys Ed	Volunteer orgs	Playgrounds
		High Schools	High Schools	Sport/Red/Phys Ed	Work/community-experience	Art Galleries & Museums
		Voc Ed	VET providers	ACE programs in VET	OTJ training	AG's & Museums
		Higher Ed	Uni's	Uni extension	Prof associations	Libraries
↓	ANDROGOGY	ACE	ACE orgs	ACE Orgs, hobby courses	Labour Mkt Progs	
		PP Para* - Pedagogy	Bush Mechanic's Institute **	U3A – Men's sheds,	(Action) Learning Circles	
	Est actual Social quantum 100% (@03-2009) ***	25	20	30	25	
	Est actual Socio-ec energy 100% (@03-2009)****	84	05	10	01	
	Psycho-Social valorisation & -media net visibility 100%*****	+99	+05	-05	+01	
					Gladwell (2008) – families inc. pedagogy & beyond	

Source: P Wildman 17-03-2009 comm. 13-03-2009 V5 - drawn from H Schwencke (2007) *Membership Information Kit Life Long Learning Council of Qld.* 14pgs [www.llcq.org](http://www.llcq.org).

**Pedagogy** here has two dimensions: (1) of the process of teaching children (2) accredited i.e. formal courses

**Androgogy** here also has two dimensions: (1) adults learning (2) non pedagogically

**Techn** machine as extension of the hand cp. techni with hand as extension of the machine – of direct interest to PW.

Note term handicapped a generic one with specific connotations that applies to disabled people. See App D for further information on the 'Hand'.

**Mutual Aid Empowerment**

NB:of direct interest to the author)

\* **ParaPedagogy (PP)** in the sense of conscientisation within a Community Of Practice/Praxis (COP).

\*\***Accreditation** to be external and parallel to pedagogical accreditation and be undertaken by a peer based COP.

\*\*\* *actual* contribution of Learning Spectrum components to overall social goals/intents - **outcomes**.

\*\*\*\* *actual* financial and social (staff/laws etc.) **inputs/net expenditure**<sup>1</sup> (public & private) , entry requirements etc contrib..

\*\*\*\*\* *actual and general* type of media attention and its resultant psychological presence and social role valorisation such that for instance **Formal** as a pattern is **invisible** in that its legitimacy is essentially unchallenged anywhere on the Globe

1 private ed is netted whereas public is not i.e. public exp. from general taxation is not netted against the general tax take

**NB:** (1) The distinction between formal and non-formal learning environments is about where learning takes place.

(1a) **Formal Learning (FL)** occurs within institutions established primarily to deliver education and training, often leading to recognised outcomes and qualifications.

(1b) **Non-Formal Learning (NFL)** has intended education and training outcomes; however, the setting is outside dedicated learning institutions, most often in places where learning is not the primary business.

(2) **Informal Learning (IL)** is distinguishable by intent. It can occur almost anywhere, but as a by-product of other activities. It is often unplanned and without explicit emphasis on learning, yet may still lead to the acquisition of valuable skills, knowledge and attitudes.

(3) The **Life-Long Learning (LLL)** dimension is relatively non-problematic, as it simply comprises what an individual learns throughout life. It is widely accepted that as knowledge and skills become obsolete, individuals continuously update their competencies in a process of continuous learning.

(4) The **Life-Wide Learning (LWL)** dimension is more complex, as it embraces an extensive range of learning settings, contexts & contents relevant to ones lived life e.g. LWL covers the various content foci of one's life e.g. from hobby of x to profession of y to assisting others do z viz. various widely diverse content areas of one's life wherein one specifically seeks to learn.

(5) The **Life-Deep Learning (LDL)** dimension is really a vertical dimension to this two dimensional matrix and in essence refers to conscientisation and consciousness raising, also called context learning viz. providing the context e.g. in early childhood, getting closer to the core, foundation, base or root of our conditions, issues & assumptions. LDL - Seeking out, identifying, understanding & engaging those deeper layered perspectives in ones Lived Life.

(6) **Life Long Learning Aims:** The European Commission (2001: 9) found that **LLL has four broad and mutually supporting objectives:** (1) personal fulfilment, (2) active citizenship, (3) social inclusion and (4) employment'.

[Source: (5): European Commission (2001) *Making a European area of lifelong learning a reality*, Brussels, COM(2001) 428]

(7) (7) **5 Pillars of Learning: lifelong (+ lifewide, & lifedeep PW)** learning involves: (1) learning to know, (2) learning to do, (3) learning to live and work together, and (4) learning to be. This is underpinned by the importance of learning how to learn, learning to think, learning to solve problems and learning to roll these into learning to act and reflect as in conscientised action. [Source (6): Delors, J. (1996) *Learning: The treasure within* Report to UNESCO of the International Commission on Education for the Twenty-first Century, UNESCO]

(8) **History of LLL:** The idea of lifelong learning originated around the turn of the 1900's and grew out of movements for adult education (i.e. post-schooling), such as Schools of Arts, Mechanics Institutes, Workers Educational Associations and similar organisations. As such ACE shares a common heritage with the Great Australian Bush Mechanic/Artificer.

## **The Road less travelled - Life Deep Learning (LDL)**

**The Life-Deep Learning (LDL)** dimension is really a vertical dimension to this two dimensional matrix and in essence refers to conscientisation and consciousness raising, also called context learning viz. providing the context e.g. in early childhood, getting closer to the core, foundation, base or root of our conditions, issues & assumptions. LDL - *Seeking out, identifying, understanding & engaging those deeper layered perspectives in ones Lived Life.*

## Chapter 3: Learning in Five Dimensions: Life Deep Learning (LDL)

Here we primarily look at learning in three dimensions with the third dimension – depth – including some consideration of dimensions (4) and (5). What I mean, however by learning in five dimensions is learning: (1) length (e.g. of time at school), (2) breadth (number of related skill areas covered – the horizontal dimension of learning – the essence of the Artificer), (3) depth (progressing from school to graduate school to PhD or from labourer to trades assistant to apprentice to tradesman to master tradesman), (4) praxis, over time with reflections on (3) further learning insights can emerge leading to (5) consciousness – the vertical dimension of learning. Conventional education is generally about (1) with some (3) for say 15% of the population and never about (4) and (5).

After length (Life Long Learning - LLL) and width (Life Wide Learning - LWL) we have a depth or third dimension to consider. What may be called Life Deep Learning that relates *to a depth of understanding and grasp of topic, its context and causation as well as the consciousness level of the view one has in 'grasping' this understanding*. Intriguingly this third dimension is largely ignored in pedagogy and most mysteriously also in ACE (Adult and Community) Education circles. In this section I seek to illustrate this LDL creature by reference to several styles of LDL one of which Artificer Learning is expounded in this eBook. Critically LDL must, in my view, entail an interlink between the physiosphere and the noosphere. Further LLL, LWL and LDL are not completely mutually exclusive.

LDL is a road less travelled for androgogy viz. Adult and Community Education (ACE). Clearly it comprises an important aspect of Artificer Learning. Forms of LDL include:

**(LDL1-CC) Critical Consciousness, conscientisation:** or *conscientisacao* (Portuguese), is a popular education and social concept developed by renowned Brazilian pedagogue and educational theorist Paulo Freire which focuses on achieving an in-depth understanding of the world, allowing for the perception and exposure of social and political contradictions. Critical consciousness also includes taking action against the oppressive elements in one's life that are illuminated by that understanding. In English it means 'consciousness raising' or 'critical consciousness' or 'synthetic consciousness' which includes analytical, understanding of causation behind or underneath a particular socio-economic contradiction etc, and synthetical/actionista type response. *Consciousness raising* has to be learnt in the *lived life* that is learnt through experience. [*particularly from the 1970's on*].

**(LDL2-LT) Liberation Theology:** is a school of theology within Christianity, particularly in the Roman Catholic Church. It emphasises the Christian mission to bring justice to the poor and oppressed, particularly through understanding the root cause of poverty and social injustice and to address this through political activism as well as spiritual empowerment. Its theologians consider sin, the root source of poverty, to include socio-economic process that are exploitive such as, capitalism and class war by the rich against the poor. Liberation Theologians use political theory, primarily democratic socialism, to help understand how to combat poverty. [*particularly 1960's on*].

**(LDL3-FT) Feminist Theory:** is the extension of feminism into theoretical, or philosophical, ground. It encompasses work done in a broad variety of disciplines, prominently including the approaches to women's roles and lives and feminist politics in anthropology and sociology, psychoanalysis, economics, women's and gender studies, feminist literary criticism, and philosophy especially Continental philosophy.

For instance, from a feminist standpoint, Bell Hooks encourages students to use their first language, in her case black Creole, and translate it so they do not feel that seeking higher education will necessarily estrange them from that language and culture and their lived life therein they know most intimately. (Hooks 1994:172). This situating the learning experience having students see themselves as 'atoms of history' that is physically and physiospherically present in history and part of history respects the deep authenticity of the lived life. Incredibly one's lived life immediately puts one at odds with a science based curriculum that is one's lived life is syncretical where as the conventional science curriculum is analytical. This is a profound point which is hugely significant in curriculum design. By focusing on an academic curricula pedagogy, with its standard epistemic/discipline divides of (English, Maths, History, Science) avoids:

- 1 Synthesis
- 2 Live life
- 3 Practice
- 4 Physical/Physiospheric
- 5 History
- 6 Standpoint of Science and the knowledge categories generally

Feminist theory aims to understand the nature of inequality and focuses on gender politics, power relations and sexuality. While generally providing a critique of social relations, much of feminist theory also focuses on analysing gender inequality and the promotion of women's rights, interests, and issues. Themes explored in feminism include art history and contemporary art, aesthetics, discrimination, stereotyping, objectification (especially sexual objectification), oppression, and patriarchy. [*particularly from the 1960's on*].

Hooks (1994:4) for instance identifies a well-known phenomenon in academia whereby 'a certain kind of theoretical performance' which only a small cadre of people can possibly understand that has come to be seen as representation of any production of critical thought that will be given recognition within many academic circles as 'theory'.

Too often some elite academic construct theories of pedagogy in ways that make it a critical terrain which only the chosen few can traverse - using this arcane theoretical work on pedagogy' to assert their authority and by association our dumbness or 'otherness' or 'not in-ness'. Yet we know things with our lives and that we live that knowledge, something beyond what any theory has yet theorised. Many feminist theories, for instance come from this standpoint, this place of exclusion by the elite, this silence.

In the pedagogical institutions where she studied and taught the prevailing faculty operation model (thus both for staff and students) was one of authoritarianism, hierarchiality and coercive collectivity as well as the domination of marginalised voices

and with the voice of the 'professor' as the 'privileged' transmitter of knowledge. Hooks (1994:85). This tends to create a lived reality to the 'insider-outsider' duality and filter that is predetermined, often in place before any research question gets asked let alone research gets underway or any class discussion begins. Hooks (1994:81, 83).

Hooks continues that 'those of us who have been attempting to critique biases the classroom have been compelled to return to the body so to speak about ourselves as subjects in history. We are all subjects in history We must return to ourselves to a state of embodiment on order to deconstruct the way power has been traditionally orchestrated in the classroom and determine how that has influenced us and we have influenced 'as subjects in history' others, by denying others subjectivity, voice while according it to others. By recognising subjectivity and the limits of identify, we disrupt the objectification that is so necessary in culture of domination'. Hooks (1994:139). **Clearly and thus, to be part of feminist theory we must be historical, with our own 'histories', our own 'located standpoints, our own 'genealogies' our own 'perspectives' i.e. we must be physical i.e. physiospherical i.e. embodied i.e. potentially bushy.**

It is hoped that the Artificer Learning approach is deeply cognisant of this challenge, while being intimately aware of its outside or 'othered' status in the mainstream academy, in its rationale and implementation.

**(LDL4-HI) Heuristic Inquiry:** is a five step method for externalising internal dialogue and insights. I applied this during my doctoral work. **1 Immersion** – usually 5 to 10 years – primarily was in the exemplar project of building the boat 5 years to 2007 **2 Incubation** – cogitate and ruminate and even procrastinate,,,,, until the idea births itself - Pondering what are the tracks/sections/groups in my poetry, how did they get there and what do they mean for my journey of Total Devotion, **3 Illumination** – internal epiphany – for instance seeing my poetry as not so much a gabled list of unrelated poems rather as a process of spiritual development/devotion, **4 Explication** – externalising the internal epiphany – These are patterns in your past – patterns in your research and the answer to the question 'why did I choose this as my research question' i.e. the why of the whys meta meaning in our research data - The second part of the book i.e. the Path section, **5 Creative Synthesis** – using the externalised knowledge to apply in your and others life and research - Developing this Bush Mechanic Project over the past decade. Moustakas, (1990). [*particularly from the 1990's on*].

**(LDL5-LDLRP) Reflexive Praxis:** also called QCAR (Quadruple Column Action Research) is the process through which an extended period of professional experience (often a decade or so) engages with action-based research (column 1) & reflection (col 2), & includes inner review & the application of learning insights (col 3) & their creative synthesis (col 4), to produce the final dissertation. Reflective praxis can, to some degree, operate as a methodology for the conventional exoteric thesis. However, with the inclusion

of deep reflection & pattern identification (i.e., heuristic inquiry), it can also become a method for explicating the **esoteric thesis** (Wildman, 1995).<sup>x</sup>

The QCAR process forms a triple-loop learning opportunity in which reflective praxis enables the combining of action research with heuristic inquiry. Other methodologies, such as phenomenology, are also useful in facilitating immersion in the exoteric phenomenon being studied & the esoteric or lived experience of that phenomenon. In this process the student writes, what Wildman (1995) identifies as her esoteric thesis alongside her conventional esoteric thesis. The esoteric thesis: Making inner sense of the ineffability of knowledge obtained during the exoteric research process.

NB: RP has strong elements of what may be called **Life Course Learning** where one learns from and with one's life course before during and after the event so to speak.

[Wildman & Cundy (2002) & <http://www.danagaynor.com/JPT/issue1/esotericthesis.htm> [particularly from the 2000's on].

**(LDL6-DAL)-Depth Artificer Learning:** In the context of this eBook depth means holding a 'deep' view i.e. holding multiple positions, recognising multiple causative factors, and not being overly swayed by any of them. Similarly, having 'depth' comes from understanding the many levels of reality viz. (1) *vertical* (the vertical interior gaze – esoteric - consciousness and causation) and (2) *horizontal* (the horizontal exterior gaze – exoteric - disciplines, skill sets, Government departments and the like), and (3) an integration of Hand, Heart and Head integrated in Consciousness. Those without depth have a 'flat land' or horizontal view, which is useful yet fundamentally incomplete and misleading. I submit that Artificer Learning can be seen as a form of depth learning, esp. depth artificering as outlined in AUS1: Depth Artificer; that emerges from the Exemplar Project, Reflexive Praxis and Life Context Learning (LCL).

In this sense I suggest we need to account for several dimensions in depth learning:

**[A]** The transcending of binaries: this means, in my view we must look to the East (Hindi and Tantra), especially in its interfluent conception of mind and energy of God and man, thought and action viz.

**[B]** Self (1) **inner** – intentionality, (2) **outer** - extensionality, **[3]** **mind** – *kosas*, (4) **body**, **[5]** **energy centres** – *chakras*, **[6]** **flow** around these – *nadi*, generating **[7]** **energy and consciousness** – *prana/chi and citta*<sup>xi</sup>, and finally **[8]** **actions** that flow from, and enable, this energy flow – the Esoteric Artificer – beyond the scope of this eBook

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<sup>x</sup> The esoteric thesis parallel to this eBook series may be seen as Wildman, P. (2010). *[BMAP10] Zen and the Art•ifice of Ingenuity – the emergence of the profane sacred in the Bush Mechanic as Sacred Activist: towards an emergent Chiro-‘3H’ yoga (Head, Heart and Hand)*. Here the Exemplar Project could be seen, for instance, as an example of, *logos spermatikos*, or the law of generation in the universe, close in meaning to the Demiurge or DUF (DemiUrgic Manifesting Field) which was the principle of the active reason working in inanimate matter manifesting its divine nature. Humans, too, each possess a portion of the divine logos.

<sup>xi</sup> Prana is an auto-energizing force which creates a magnetic field in the form of the Universe and plays with it, both to maintain, and to destroy for further creation. It permeates each individual as well as the Universe at all levels. It acts as physical energy, mental energy, where the mind gathers information; and as intellectual energy, where information is examined and filtered. Prana also acts as sexual energy, spiritual energy and cosmic energy. All that vibrates in this Universe is prana: heat, light, gravity, magnetism, vigour, power, vitality, electricity, life and spirit are all forms of prana. It is the cosmic personality, potency or entelechy in all beings and non-beings. It is the prime mover of all activity. It is the wealth of life.

[C] the Collective aspect of these eight viz. (1) collective unconscious, (2) culture, (3) noosphere, (4) physiosphere and infrastructure, (5) love and finance and electricity water/food, (6) water, electricity, love and money and (7) water and electricity grids, electricity grid, family and velocity of money (for instance), (8) Exemplar Projects etc. – the Exoteric Artificer – within the scope of this eBook - see [D] and finally

[D] the Bush Mechanic Logic Base of [B](8): (1) Exemplar Project, (2) Social Holon/Mutual Aid, (3) Global Problematique and (4) Action Learning.

In Eastern philosophy there are many subtleties for each of these far more than I can understand let alone be incorporated into this eBook. The critical ones from my limited Western perspective are the following five: {1} mind – defined broadly as to include consciousness and body - *Kosas*, {2} energy centres - *Chakras*, {3} energy flow via the *Nadis* between these generating, {4} energy and consciousness – *Prana and Citta* and {5} ensuing and enabling actions - *Praxis*.

So in this regard, for this eBook and in relation to the Deep Bush Mechanic and Depth Artificering I wish to focus these five viz.: {1}mind - *kosas*{3}, {2}energy centres - *chakras*{5}, {3}flow - *nadis* {6}, {4} energy and consciousness – *Prana and Citta*{7}, and {4} actions – *praxis*{8} above. Recognising also there is; an inner ↔ outer and; individual ↔ collective dimension of same viz. Wilber (1995) and the four quadrants, and logic base dimensions to these {five}.

**Depth Artificering and the Chakras (types of layers of energy):**

Chakras are energy centres of the body and each has its own type of energy or *bon vita* (love of life, exuberance) as I like to say. Each Chakra is associated with a particular glandular plexus and secretion and energy this system shows the braiding together of the body and mind. In turn each chakra represents a particular propensity. Clearly dietary and meditative/yoga and exercise requirements are all interinvolved. Pure unprocessed food and water have the most prana, chi or vital energy. Especially whole foods and green leafy vegetables are crucial as is a source of protein from fish, soya, chicken or meat, dairy and eggs in balance and proportion, giving vital energy for a brilliant mind and wise action, which displaces Ego with ego, I with i and links these with the deeper and broader realms of mind/body (*kosas*) and energy (*chakras*).

The chakras are said to have spiritual qualities associated with them and their expression remain dormant until they are opened/constellated in Jungian terms and nourished by the kundalini power. Kundalini is a word taken from the Sanskrit word ‘kundal’, which means ‘coiled up’. Kundalini is envisioned as a coiled up ‘serpent’ at the base of the spine and its ascent upward through the seven chakras activates their dormant powers, truths and wisdoms. Each chakra is connected to part of the hands and through Yoga, the hands become sensitive

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This self-energizing force is the principle of life and consciousness. It is the creation of all beings in the Universe. All beings are born through it and live by it. When they die, their individual breath dissolves into the cosmic breath. Prana is not only the hub of the wheel of life, but also of yoga. Everything is established in it. It permeates life, creating the sun, the moon, the clouds, the wind, the rain, the earth and all forms of matter. It is both being (*sat*) and non-being (*asat*). Each and every thing, or being, including man, takes shelter under it. Prana is the fundamental energy and the source of all knowledge.

**Prana and Consciousness (Citta):** Prana and citta are in constant contact with each other. They are like twins. Prana become focussed where citta is, and citta, where prana is. Source:

[http://www.holisticonline.com/yoga/hol\\_yoga\\_breath\\_prana.htm](http://www.holisticonline.com/yoga/hol_yoga_breath_prana.htm) (accessed: 03-2010)

to the state of the Chakras, and with practice this can be interpreted. Metaphysically the chakras can be seen as representing the *tree of life* and this then presents an analogy to Kundalini and a homology to christianity (approximate equivalences from 7 to 1 are):

**Crown:** Divine Will – *Caritas Love* – love of God for man, human - Father

**Brow/Third Eye:** Deep God∞Man wisdom/discrimination/perception of the path viz. the elder, love of man for god – the wisdom one gains through completing a journeyman’s piece balancing god’s love for man and mans love for god through expressions of mans love for man – self actualisation chakra – the esoteric exemplar/artificer

**Throat:** Understanding through Grace expressed as love∞responsibility – love of man for god – *Agape Love* - Social Holon - Son;

**Heart:** Justice – *Zeusian Love* (Greek mythology – Zeus, and Roman mythology – Jupiter)

**Solar plexus:** life giving, all encompassing energy *Philadelphia Love*; ‘D’esign of EP – Holy Spirit;

**Navel:** sexual/eros/regenerative energy – *Eros Love* – Energy brought to EP task

**Root:** stewardship with Gaia rooted in mother earth – *Gaia Love* - simultaneously EP Raw Materials and EP Global Problematique – stewardship of creation - Mary

Detailed exploration of the chakras and their associated energies are beyond the scope of this eBook. Further it should be noted there is no direct Christian equivalent of the Kosas, Chakras or Nadis.

**Table 2: The 7 Chakras**

No.	Chakras	Petals	Colors
7	Crown	1000	Violet
6	3rd Eye	2	Indigo
5	Throat	16	Blue
4	Heart	12	Green
3	Solar	10	Yellow
2	Navel	6	Orange
1	Root	4	Red

**Source:** <http://www.saisathyasai.com/chakras/> (Accessed: 03-2010)

**Depth Artificering and the Kosas (types or layers of mind):** Here we encounter what in the East where mind is not separated into I and Thy that is Me and God. For instance Hindi East is called ‘realms of the mind’ even layers of the mind somewhat like an onion that we can unpeel to find out different aspects of ourselves and our universe. This is an esoteric Hindi concept. Often called Kosas – the six Kosas - ranging from:

(1) the **physical mind** - Anamaya Kosa - - (body as part of the mind) – materials for the EP

(2) the **conscious mind** - Kamamya Kosa – practical life – ‘d’esign viz. blueprint of the Exemplar Project

(3) **subtle mind** (inc. the subconscious and unconscious) mind - the Manomaya Kosa – still personal and the unconscious mind (collective) – deeper meaning in, to, and from the EP and indeed life itself, such as an answer to the question ‘why was I born?’

(4) **Spiritual Mind** – Atimanasa Kosa – spiritual gifts, creativity, art, ‘D’esign viz. PIDIL of

the EP, intuition clairvoyance etc.) – deep reflexivity and meditation help reveal and release these skills and abilities on the boundary between the individual and infinite minds which in the sixth Kosa become one. Here we have flair and deep design and creativity so inspirational in epochal works and EP's

(5) **Love Mind** – Vijinanamaya Kosa – which includes true discrimination and discernment and non-attachment and finally

(6) **Infinite Mind** – Hiranyamaya Kosa – longing for the infinite as with the Salt Doll in Ultvansi Koans.

[See Inayatullah, S., M. Bussey, and I. Milojevic. (2006:355-357), Rama (2000), Jitendrananda & Wildman (2003)].

#### Depth Artificering and the Nadis (types of channelling of energy):

It is suggested that the subtle life energy known as 'prana' is channelled from the chakra points through a vast network of subtle nerves called *nadis*. These nadis are said to supply the subtle bodies (kosas) with light, which is responsible for intellect, wisdom, understanding, clarity of mind and awareness.

#### Depth Artificering and Self-realisation

Here I submit we can see the ultimate aim of Life Wise Learning inc. Depth Artificering that is the Western equivalent, however inadequate that may well be, in an integration of these chakras, kosas and nadis in self-realisation expressed through Artificering and its physiospheric representation of the Exemplar Project – even Ghandi would spend 1 hour per day spinning his own thread for his own clothes.

Here 'self', is not in the Western sense of 'me first and only' but rather self in relation to others and ultimately in relation to god. In Dutch there is a word 'mensen' and in South African 'ubuntu' each meaning approximately the same – self-realisation through, and in, the context of the 'other' inc. persons and living and non living phenomena viz. 'I am because you are' or 'I am a person through you other persons'. Further I submit the Exemplar Project is one such concrete even mundane expression of this search for self so to speak for self-realisation. 'S'elf realisation on the other hand is when 's'elf becomes infinite such esoteric considerations are beyond the scope of this eBook though nevertheless acknowledged.

Indeed one way of deconstructing the four principles of the Bush Mechanic's logic base is that they are horizontal (Exemplar Project – Principle 1) and vertical (w.r.t. increasing consciousness in principles 2, 3 and 4 respectively). Principle 4 loops back to the Exemplar Project and allows for improvements and deeper understanding of the task at hand in the second and subsequent rounds.

#### Depth Artificering and the Sadvipra

Such a spiritual entity is a person who has gained a self-realisation, knowledge of and integrated the Kosas, Chakras and has 'healthy' Nadis through Yoga and Service. Further she has subsequently, and conjointly, developed a balanced mind (Artificer Thinking $\infty$ Doing), is committed to service to others (2P-MA/SHolon), is prepared to accept and undertake great challenges and projects (1P-EProject – as concretised yoga linking unit consciousness with broader collective consciousness and beyond), is committed to deep learning and helping

others achieve same (4P-Learning) while undertaking projects that meet the above requirements and are committed to innovation and sustainable economic growth (3P-GProblematique). E.g. 3P=third of four principles of the Artificer's Logic Base. These may be seen as descriptors for partnership societies.

Generally though as we have in the West today, dominator societies, such dominator societies generally use 'othering', hierarchies, power over tactics, the creation of administrative vertical silos, treat the local as anathema and the commodify partnership and economics. See Milojevic (2006:146-149) and Eisler (1987). Such partnership societies can be seen, I suggest, as exemplars of positive peace. The sadvipra is an important destination point or ultimate renewing end for Neohumanist education. See Inayatullah, Bussey and Milojevic (2006).

While acknowledging that the West, and thus Artificering, has no direct equivalent of the first sentence above there is a sense that the former can be seen as a homologue of the latter – at least, I submit, in these five key regards. Certainly the artificer as wise and savage elder or Sadvipra is one who seeks to 'be the change she wants to see' and very much needed on planet earth at this moment.

#### The Depth Artificer balancing the Exoteric and Esoteric – an oxymoron?

Most, if not all, pedagogists and philosophers and esotericists that I have encountered see both exoteric and esoteric artificering in each instance as an oxymoron, or as I say below an oxyboron. Seen as instrumental and mundane and as such, in a Western sense, irrelevant, and further in a Western sense esoteric artificering, loses its origins in the Middle Ages, gets lost in arcane text after arcane text on bows and rays and so forth. None of these paths valorise changing a tyre, tap washer or unplugging a toilet let alone an exemplar project. The East is seems is all we have left – thus my interest in exploring some of its Artificer related areas in these sections of this Chapter.

These pedagogists etc. generally are antipathetic to, and even fearful of, depth learning, depth understanding of existence and depth spirituality respectively, **especially in relation to the connection between individual consciousness and both personal and collective action**. Many even take depth to be in conventional – mundane/exoteric or esoteric senses. Such considerations as I seek to advance here are pilloried and considered at best superficially instrumental and are dismissed, swept off the table and 'othered' sometimes by those who write much about the importance of incorporating 'the other'. The sadvipra artificer is seen as a phantasm of one's mind under Eastern influence. While I respect this, and as argued elsewhere in this, and the first eBook, this view even if valid is yet, I submit, not complete.

In this section I seek to present a rationale for the Depth Artificer considered an oxymoron or even may I suggest, another neologism an **oxyboron** or even an oxyyawnon– a boring contradiction in terms that is so boring it makes one yawn. It is up to the reader to judge. I doubt I will change your mind – however the Bush Mechanic is a phenomena that exists and many of us, certainly I have, experienced meeting and working with several and have been at a loss to explain my depth experience. So in this regard I have sought to give voice to the 'other' here such that I believe I can authentically say the 'other' in each of us

silenced by conventional status quo pedagogy, a form of pedagogical violence. I have no illusions that many, if indeed any, will find the Bushy and my work there on, valid or of value.

The singularity seems far away yet it is only 360 months yet we squander our heritage as humans part of Gaia for techno-humans of planet capitalism thus I fear will be the uploaded logic base at the singularity. I weep for my grandchildren whom I feel I have betrayed though logic dictates others still I weep. We deeply and even desperately need a practical type of sacred activism or the sacred artificer. See Harvey (2005).

As an exoteric pedagogy, the **Artificer Learning Pedagogy (ALP)**, recognises and strongly draws from the first three Kosas. These are the individualised mundane ones so to speak. Beyond this the West tends, in my view, to talk of 'G'od in an external 'other' style. Further if one looks to Western esotericism then the archetype of the Artificer is strongly located within Masonry and its Artisan origins in the Middle Ages, or even earlier. Here the various degrees represent moving towards the cosmic mind, nonetheless as 'G'od, somewhat though not directly akin to the Hindi form of esotericism above. This is explored especially in eBook 1.

Furthermore if one allows spirituality to be interconnected, mutually beneficial, synergised, consciousness as 'Artificer degrees' (1), (2), (3) and (4) respectively then we have the four principles of the Artificer Learning Pedagogy Logic base that is; (1) Exemplar Project, (2) Social Holon, (3) Global Problematique and (4) Action Learning. Consequently these principles can be considered both horizontal in exoteric space and vertical as in esoteric space. Furthermore each of these four logic bases have their own external (extroversial enactment energy and techneques) and internal (introverserial reflective meditative moment energy and techneques). Combined they produce a type of, if I may, 'meditative empiricism'.

Such **Daily Artificer Meditative Practices (D-AMP)** could include for instance in relation to my specific exemplar project: (1) the physical beauty of the boat and the stainless steel trailer that we made their rounded shape (which I often feel) and intense almost utilitarian functionality, (2) a relaxed tranquillity I have when out in the boat with for instance my grandchildren that I relax and reflect while they are fishing and I have my green tea – social holon and mutual aid, (3) clearly fish stocks, carrying capacity, no fish zones, global warming and the like all surface as I reflect as does my own inner sympatico even empathico therewith and my own inner peace or lack thereof – global problematique, and finally (4) the several learning insights even epiphanies as 'ah ha' moments that I have had where my consciousness as jumped a few notches at gasp grasp of a particular principle insight, realisation or revelation from this inner/outer reflexive aspect of the humble bushy.

Such reflexive reflective meditative AMP's for me are daily in order that instead of viewing the finite and mundane and logistical as such one can view them as finite expressions of the infinite in a loop of eternal return. The physiosphere through the noosphere braids and blends with the infinite. This then is the first and sixth Kosas.

In this way individual Artificers can develop a sense of wholeness on all three levels of their identity, the: (1) **Egoic**, which requires a more adaptively cohesive sense of self identity with and yet separate from the world, for instance as represented by the Exemplar Project and the Inner World principle, (2) **Existential**, which while encompassing the egoic state, also requires a more coherent sense of one's individuated state within the human conditions, through for instance the Social Holon and Global Problematique; and (3) **Transpersonal**, which requires that one transcend the egoic, existential identities and enter into a heightened awareness of essential unity with all human beings, living things, Gaia and ultimately the cosmos, for instance through the Integral Harmonisation and Artificer Learning principles of the Bush Mechanics Logic Base.

**(LDL7-LDL)- Life Deep Learning:** LDL: Life Deep Learning - This is the principal form of depth learning or LDL propounded in this eBook. **AL and LWL** include the various skill areas that relate and are necessary for an Artificer to deliver a 'joined up job' to the customer possibly even him or herself. **Al and LLL** include the development of expert heuristics and judgments esp. in design and prioritisation as in the PIDIL 'D'esign system inc. the projects links with the social holon and global problematique principles. Such heuristics cp. for instance to CBT training algorithms, take, as argued in the 10,000hrs section, around a decade to obtain. I argue depth is the counterpoint to competencies, as in CBT, and in some sense each is mutually exclusive of the other.

Depth Learning is a grand challenge for one considering for instance, if I may, volume of learning requisite in the volume equation  $l \times b \times d = v$  so that to some extent learning volume can be spread shallowly over a large area or thickly over a smaller one. The dilemma here for the Artificer is that in terms of Life Wide Learning as above the surface area has also to be substantial to be able to deliver joined up projects for the customer. In this regard I recognise the issue of time so that one may posit learning volume is to an extent a function of capability, application, opportunity and time. In this regard a decade can provide for at least two four apprenticeships' or even more if they overlap plus requisite associated experience.

In this regard in a somewhat narrow sense the ability to study more than one trade at once say two related trades over 5 years cp. 1 trade over 4 will help with the breadth and the term Master Tradesperson will assist with the depth. The Masters attribution must be not in terms of restricted silo focus e.g. a specialist surgeon but rather a depth GP type focus. **Ethics (AE)**, an LDLP needs must seek to impart transformative skills to education for tomorrow today. Here one can see embedded Artificer Ethics such as: walking the earth lightly, non-harm, gratitude and humility of service, and recognise that Artificer Ethics situates us in the praxical that is the praxis of the lived life as cultural experience, that our relationship viz. Interfaces/coherences with the physical, organic and human worlds underpins ALP, such that this pedagogy implicitly incorporates the intergenerational ethic of trans-temporality viz. past, present and future from a glocal perspective, this ethical system actively situations one in the thick of life as lived cultural experience. 10

**(LDL8-LCL) Life Context Learning:** For instance Gladwell (2008) argues forcefully that 'success' later in life is largely dependent on parents, family and community – concerted

intentional cultivation here depth of context provides a deep learning (positive or negative) through a sort of learning osmosis from context of the child/student.

Gladwell (2008:258) is most insistent in that his research's into successful individuals found among other things that they were born later in the year and thus had to be 'kept down a year' and also were subject to what he calls 'concerted cultivation' by their parents. These weren't the destructive control freak parents we see on TV that scream 'succeed at any price' at their pint size footballer children rather these are the parents that take the imperative to 'help the child develop to its potential to heart very very much to head, heart and heel.

In the vast majority of the successful individuals he studied he found a massive 'enculturation' learning a sort of 'osmoting' from the child's context/environment through her 'lived life'. This is an extremely significant determinant, in fact in Gladwell's view, 'The determinant of later success in life.

He identifies some eight key aspects of such **Life Deep Learning**:

- (1) a cultivated and proactive **practical intelligence** in the child who
- (2) **yearns to learn,**
- (3) **concerted intentional cultivation** esp. by parents,
- (4) **positive cultural/family context** i.e. deictic learning,
- (5) **agency,**
- (6) **permissions** – permission to give it a go and if at first one doesn't succeed try try again that is entitlement/permission to try, permission to fail, permission to understand, and
- (7) **opportunity** that is 'joined up' is genuine and fits within in even emerging from the students lived life,
- (8) **techne** - extended dedicated detailed daily commitment to achieving **mastery through techne** (my term for his which combines technical ability, agency, judgment and expertise) – which covers 'mentored action that is deep and broad and long e.g. a decade.
- (9) **immersion** (he devotes a whole chapter to what he calls the 10,000hr rule [Gladwell (2008:Ch2) which, 'coincidentally' is about the length of a Jesuits study course or Medieval Apprenticeship of 7 years, culminating in the journeyman's process of journeying and producing the exemplar or journeyman's project, and, and finally
- (10) **creative synthesis** or practical **exemplar** demonstration.

In my understanding from what Gladwell is arguing it would be reasonable to argue that such life deep learning accounts for at least 3/4ers of the success of the individual in later life.

**(LWL9-LWL) Life Wide Learning:** Life Wide Learning: this is the basis of Artificer Learning which is broad encompassing a range of related skill sets. Furthermore LWL represents a system for learning from and with the vicissitudes of life in all its disturbing and enthralling visages. This system of learning strongly relates to the previous systems of learning and is essentially an application of action learning which an application of experiential learning is in turn. This then is one aspect (**the extrinsic learning**) of the **AL Dialectic** and the basis of the pedagogy of this eBook series.

**(LDL10-EWL) Esoteric Wisdom Learning:** This is covered in the main piece of this site Zen and the Artifice of Ingenuity as well as AUS1 Depth Artificer in this Artificer Update Series (AUS). Often esoteric learning paths such as Masonry have physiospheric projects as part of their operations and in the case of the Masons certainly in their history. NB: Masonry is used for illustrative purposes only indeed Steiner/Waldorf may also be considered a form of esoteric learning. Such learning is extensive with 8 or so degrees and various apprenticeships to be served over at least a decade. It is not included here in any great detail, not to decry such systems, yet rather because the primary focus of these systems is on the esoteric acolyte not the exoteric citizen and the aspirants spiritual path will where push comes to shove trump exoteric journey.

In EWL it is recognised that Cosmos holons Logos, Ethos and Physios i.e. the mental, the ethical and the physical. And I would suggest these three would matrix layer over a triune consciousness of Unconsciousness Consciousness and Supaconsciousness dimensions both on the individual, local and collective levels a triple tri-unity. One can see elements of this in the bush mechanic logic base of global problematique (logos), mutual aid (ethos), exemplar project (physios) and learning a combination of these as they enter our individual and collective consciousness.

#### **(LWLII:11) Life Wise Learning – a culmination of LWL+LCL+LLL+LDL=LWL:**

These three types of Learning then may be said to add up to/triangulate in wisdom = Life Wide Learning + Life Context Learning + Life Long Learning + Life Wide Learning + Life Deep Learning = Life Wise Learning. This is not to suggest LWL is an algorithm rather an eclectic heuristic incorporating aspects of the above four components<sup>xii</sup>. This then includes

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<sup>xii</sup> From a personal perspective an illustration of **Life Wise Learning (LWiseL)** is given below: LWL in this illustration is based on (LLL and LWL) and in particular LDL which in turn includes consciousness raising psychological process. The following illustrates the outcomes of such a process.

LDL is not an interpretive/heuristic or analytical/algorithmic way of understanding a dream, but is a non-linear consciousness journey into its healing heart. The experience of a **deeper reflective/inclusive state of consciousness** leads away from egocentricity toward a more biocentric perspective. A larger sense of participation counteracts existential alienation. For example dreams reflect this self-generating, self-iterating and self-organization of patterns, and so does the natural philosophy emerging from the New Sciences.

The **process of creativity** is one of new forms emerging from the LDL, new forms that have not existed previously. Not merely a juggling of existing forms or ideas into a new configuration, it is more of a quantum leap, a disruption of the old perception into new levels of consciousness and awareness.

Chaos theory then provides an apt metaphor for this process. In a nutshell, chaos theory states that in all apparent structure is hidden chaos and in chaos there are hidden potentially emergent forms. So we exist in a twilight zone between **chaos and order**. We flow back and forth between them and that keeps us healthy. Just like our hearts that need to vary slightly in frequency and rhythm (a variance called fractal or spectral reserve) to stay healthy. Chaos then can provide us with a new image around which to order the personality and often the physiology. This is an application of the old alchemical maxim, '*solve et coagula*,' dissolve and reintegrate. One third of the process is being able to let go of the focus of attention and enter the chaos. The next is being able to seize the new order that arises from this entering. And the third is to re-emerge and reintegrate ones 'raised consciousness' within and without one's life. Order is present in the most chaotic state of mind, just as chaos underlies even the most rigid and orderly intellect.

Here we engage another aspect of this approach to LDL – the **whole brain** aspect. The psychological approach to LDL would argue, for instance, that we are attractor-centred, whether we conceive of that primal attractor as divinity, the esoteric self, the core self, the Jungian self, the Gestalt self, the creative self, our holon self, the anterior or 'othered' chiro-self, or that deepest sense of self--our primal self image (including its unconscious

**the other aspect of the AL dialectic – intrinsic learning.** Methodologies such as Reflexive Praxis can link the two.<sup>xiii</sup>

### **The case against LDL systems:**

Primarily these points represent the critique of noospheric horizontal pedagogy (e.g. Status Quo Pedagogy) of experiential and depth pedagogies.

- (1) Clearly behaviour based **commodified competencies** e.g. CBT is a valorised contra-point LWL/LDL
- (2) **Pay rates** already make craft labour uneconomic in all Industrialised Western nations this only exacerbates the situation
- (3) **Time lines** taken, of a decade for instance, are several times longer than youth today are prepared to undertake
- (4) **The elimination of Master Tradespersons' qualifications** and their replacement with Admin and Management courses undercut this expertise rich path to LDL
- (5) **Technique replacing Technique** means that the establishment of industrialisation and now computerisation of technology continues apace and reduces the human attendant to an operative
- (6) **DAL and LDL look to a different type of citizenry:** Proactive Innovative Citizens (PIC) and thus counterpoints today's Western Cultural Meme of Suppliant Compliant Consumer (SCC) role for today's citizens whereas
- (7) **DAL requires the overturning of pedagogy** which separates thinking and doing

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aspects). Many other aspects of this 'whole brain' 720° consciousness state have been described, such as feelings of dimensionlessness, timelessness, egolessness, selflessness, and boundarylessness. Here the whole is reflected in the part and the part is seamlessly unified with the whole, we experience ourselves as a **holon**.

**Play** then is another crucial element of LDL for discovery of these fluid connections, physicosocial dynamics and prescriptive information and control for more efficient self-regulation -- adaptive solution finding. Thus, alchemy represents a form of 'play' a dynamic synthesis that is always occurring at the critical edge of the merger of inner life and 'external' [sic] environment. And this is always happening in the NOW.

The primal images, the deep multi-sensual experiences and perceptions act like psychic magnets/attractors, attract and order energies around them/us, which echo their shapes and forms. Like fractal patterns displayed on a computer screen, the quantum shift comes when the attractor values are changed with small changes in attractor values generating substantial changes in the patterns displayed. The old image that lies on one side of the chaos experience gives way to a surprising new image that arises from the chaos.

Emotions, thinking, and behaviour and thus practice and consequently **ones lived life** are all affected retro and pro actively.

Finding such adaptive LDL solutions demonstrates survival and **system resilience** by maintaining tension of opposites, rather than resolution in a unique solution.

**This is where LDL becomes L Wise L.**

<sup>xiii</sup> Illich in the 1970's, Wilber in the 1980's, Rama (Neo-Humanist education) (2000) and Inayatullah, Bussey and Milojevic (2006) and Wildman (1995) and others have developed and commented on essentially exoteric pedagogical methods that linked intrinsic and extrinsic learning. Hart (2006:109,113) lists seven **Extrinsic/Experiential Learning** authors and six Intrinsic/Reflective Learning. Extrinsic Learning authors inc. Rousseau in the 1720's, Pestalozzi in the 1950's, Dewey in the 1960's, Bruner in the 1960's, Freire in the 1970's and Hart in early this century. **Intrinsic Learning authors** such as Einstein in the 1940's, Tillich in the 1950's, Teilhard de Chardin in the 1970's and Washburn in the early 2000's etc. Generically and closely these authors and their work represent the heritage of this work/eBook. Many authors also have developed esoteric pedagogies which are beyond the scope of this eBook.

**Conclusion:** For the above reasons and from an operationalisation perspective I have focused on LLL and LWL as these are the predominant forms of androgogy in place and accepted in the literature. Further I have explicated the concept of LDL as it pertains to the Artificer at some length also. The latter provides a vertical Z axis on the above two with LLL on the X axis and LWL on the Y axis. Consequently in terms of moving the Artificer Learning approach forward, within existing pedagogy, then the primary forms of learning will be LLL and LWL. LDL would be a path less travelled and will take a separate system of integrated pedagogy and androgogy and ACE and TAFE to eventuate. This is almost impossible to envisage within the formal educational system. Maybe after all DAL like the other systems of LDL is just like Don Quixote tilting at windmills.

## Chapter 4: Learning in the Fourth Dimension: Organisational Learning

A Western obsession with education is that it is conceptualised as being skin bound and age cohort regimented. Organisations (inc. communities) are only considered to have 'learnt' in as much as their individual members learn in the traditional egg crate industrialised one size fits all structuralism with the curriculum utterly distant from the students lived life all delivered with the context of, and through the auspices of, elite knowledge and bureaucratic or power-over control. Let alone all the power-over structures of the classroom. This then is learning in the fourth dimension that is the collective dimension of organisation or collective synthetic as distinct from individual summative learning.

Take the case of Adult and Community Learning (ACE) here individual members of the community can learn to undertake, and by undertaking, various quite distinct tasks to get a civic job done. No one person learnt or used the same skill set or individually had the same outcomes yet the project got completed. This is also part of the beauty of the Exemplar Project in the Artificers Learning context. Yet conventional pedagogy has education as skin encased bums on seats each simultaneously on page xyz of curriculum book A and so forth. For me this is not education, well certainly not learning.

And Artificer learning and indeed many of the other forms of L<sub>Wise</sub>L represent an alternative pedagogy each with a perspective on power-with. One of the key requirements of organisational learning is to (1) discover and implement an alternative to bureaucracy and (2) to adapt Illich's tools for conviviality to this reconstructed social structure. Both of these tasks are outside the ambit of this eBook.

Each of the forms of learning LLL, LWL and LDL have their analogues in organisational learning. It may well be also that on balance if one relate individual learning to agency and organisational learning to the structure within which the individual locates that the balance is 20 | 80 in favour of structure.

The various systems of L<sub>Wise</sub>L are written from the perspective of the individual learner and so to an extent have to respond to this critique of Western education so ably put by writers such as Holt (1964, 1976) and Illich (1971, 1972, 1977). So in the sense of homologue or analogue to individual learning organisational learning may be seen as an overlay of one another.

So in overview if possible I would ask that the reader, while bearing in mind my ACE caution above, fold organisational learning into the previous two chapters on individual learning. And allow the latter to inform ones conception of the former. Please note: also this eBook is not one about organisational learning.

## Chapter 5: KAL/Artificer Learning Criteria/Attributes

1. Incompatible with existing pedagogy
2. Vertically interfaced/coherent
3. Horizontally interfaced/coherent via. project groupings
4. Socially mixed/heterogeneous
5. Locally articulated
6. **5a. Be perception/experience/doing not cognition/theory/thinking based**  
**5b.** Thinking and Doing braided if not merged and equally valorised
7. **Schools, curriculum, pedagogy, assessment to be drawn from the Lived Life of the Community/Volk**
  - 7a. **All subjects to be (1) handy, (2) incorporate student designed, (3) project based, (4) co-operative, (5) functional in big and small picture senses, (6) inc. home/community input, (7) threefold oriented**
  - 7b. P&C integrated into authority, admin and curriculum priorities
  - 7c. Learning mentors (previously called teachers) to be 50/50 pedagogy and 'experiencagogy' or 'bushygyogy', 'artificeagogy'
  - 7d. Pedagogy to be 50/50 Pedagogy and Androgogy
8. **The Threefold Triangular Nature of Artificer Learning**
  - 8a. Threefold A:** Childhood to concentrate on **learning by seeing** – seeing what you are doing, the middle years by **learning by thinking** – thinking on what you are doing, and the final 'trimester' so to speak on **learning by doing** (which incorporates seeing and thinking) with each trimester as it were being around 5 years
  - 8b. Threefold B:** Learning to be individualised based on inducing a thirst for living and merge from the home, with the middle years being in the school and the early 20s in service in the community/business/government
  - 8c. Threefold C:** 10,000hours rule as pre-requisite for achieving the recognition of Artificer to be made up of three 3300hr trimesters viz.: 1 within the school system above then the second and third are elective and can be undertaken when ever in life the person so desires. Generally these would account for 2.5yrs study each.
  - 8d. Threefold C:** Learning to be extensive (linking several horizontally related fields) and intensive (inner character development) and in depth that is vertical wrt consciousness
  - 8e. Threefold D:** To learn by (a) an exemplar project that demonstrates practically how we can live together today so that better world is possible tomorrow for our children, (b) that helps others and (c) helps the planet [the Artificer/Bush Mechanic Logic Base]
  - 8f. Threefold E:** Dexterity  $\infty$  Mind development (layers)  $\infty$  Exemplar Project (mind development is the centre however not the focus of AL – the EP is the focus)
  - 8g. Threefold F:** the triangle made by the pathways between Hand $\leftrightarrow$ Head $\leftrightarrow$ Heart
  - 8h. Threefold G:** the triangle made by the pathways between Community/Parents  $\leftrightarrow$

Child/student ↔ Teacher/School

**8i. Threefold H:** Futures Foundations – scenario bases – Time | Rationality | Agency or Science | Ways of Knowing | Spirituality. See Inayatullah, S., M. Bussey, and I. Milojevic. (2006:50-51)

**8j. Threefold J:** the triunity formed by Kosas, Chakras and Nadis

9. **Rewards – The artificer makes it clear that rewards and punishments or consequences are inherent**, intrinsic and integral to the activity which is an integral part of one's vocation rather than something defined by the market or commercialisation

10. **Intelligent Narrative Play** (Kids Learning) ∞ Adult Learning Lived Life Projects (Adults Learning)

**11. VET and Higher Ed braided if not merged**

12. School play night to be school project display day

13. Displayed on a public assessable interschool web based clearing house

14. **Experience** in the sense of integrating the Latin meanings of:

- . sentio - feel, **to feel**, to judge, perceive, **suppose**, to perceive, vote, **hold an opinion**
- . usus - **to use**, employ, **skill** (solers – adroit, ingenious; faber - fabricate, craftsman, artisan (Gk: techne)), possess, profit, **enjoy**, advantage, **associate with/mutual**, find
- . experior - **to try**, to test, put to the test, **ascertain**, prove
- . eventus - **outcome**, fate, **success**, event, occurrence, **consequence**, issue, result

15. **Make** in the sense of integrating the Latin meanings of:

- . effingo - **to form, fashion**, duplicate
- . efficio - to do, produce, effect, **bring about**, cause, prove, to bring to pass
- . planto - to set in place, form, **shape, plant**, fix in place
- . creo - **create**
- . pario/partum - to bear, **bring forth**, produce, create, get, to spawn
- . aletheia – (slight link) – to become – to manifest one's or something's potential – to emerge – a dynamic form of essence which reflects on and is incorporated in the person, product and process re. exemplar.
- . telos - (weak link) – as in techne gives telos – normally telos embeds in something rather than is imparted e.g. via. techne. So conventionally telos ≠ techne

16. **Dexterity** in the sense of hand to head learning [App D refers]

17. **Exemplar** in the sense of integrating the Latin meanings of:

- . libero - sufficient, disinterested, free, generous, charitable, **beneficent**, hospitable, bountiful, bounteous, handsome, unsparing, ungrudging, unselfish
- . probus - upright, **ethical (PW)**, liberal, generous

18. **Project** in the sense of integrating the Latin meanings of:

- . exsto - **to stand out**, appear, **be extant**, show itself
- . emineo - to stand out, **be remarkable** (exemplar PW), conspicuous, to be prominent
- . exertus - tested, tried, **thrust forward**, approved, experienced

19. Curriculums to be based on the above
20. ACE resacralised, extended throughout society with its informality and mutuality respected and Adult Learning linked through the Exemplar Project to Kids Learning via. Intelligent Narrative Play
21. From Behaviour based disaggregated analytic CBT to Exemplar based inter-aggregated synthetic PBT (project based training)
22. Synergistical ( $1+1=3$ ), Relational (interface, the dots joined up), Synthetical (whole is more than more than the sum of the parts), Practical (efficacious wisdom)
23. Artificer Learning  $\equiv$  Adult learning, INP  $\equiv$  Kids Learning so KALGROVE  $\equiv$  kids And adults learning in a grove of gumtrees  $\equiv$  sustainable learning  $\equiv$  educational actionista

## **Chapter 6: False dichotomy between Pure and Applied research ≡ technique and technèque – the Hobby Scientist reprised**

### **The conventional view trickle down view**

Is that that there is a fundamental difference between science, applied science and technology. This difference is generally thought to be understood in terms of aims and ends pursued. Pure science is synonymous with ‘basic research’ and it includes ‘a method of investigating nature by the experimental method in an attempt to satisfy the need to know.’ In order for something to be considered pure science, according to conventional arguments, the aim of the research is strictly curiosity. Thus applied science, is ‘the use of pure science for some practical human purpose’, it is concerned with ‘discovering applications of pure theory.’

In other words, pure science aims at knowledge and is concerned with theoretical constructs ordered towards knowing, while applied science aims at practice and is concerned with theoretical constructs ordered towards practice. Technology, thus, is different from applied science in that it is ‘a little nearer to practice’. While both employ experiments, applied science does so guided by hypothesis that are deductions from pure theory while technology employs a method of trial and error and ‘skilled approaches derived from concrete experience’. Consequently technology is more synonymous with skill and its application in an activity that immediately produces artefacts.’

### **An alternative view viz. the ‘bottom up approach’ - an economic history of the centrality of the hobbyist to pure science**

Yet Kealey (1996)<sup>xiv</sup> would beg to differ he argues strongly that both in the United States and Britain the whole scientific enterprise was inspired by self supporting applied hobbyists who neither sought nor received Government funding rather than pure researchers on tenure or paid by Government grants. According to Kealey, ‘The loss of the hobby scientists has been unfortunate because the hobby scientists tended to be spectacularly good.’ He continues, ‘They were good because they tended to do original science. Professional scientists tend to play it safe; they need to succeed and at studying what their employer endorses, which tempts them into doing experiments that are certain to produce results in fields that can ‘pay’. Similarly, grant-giving bodies which are accountable to government try only to give money for experiments that are likely to work. They represent the development of established science rather than the creation of the new. But the hobby scientist is unaccountable. He can follow the will-o'-the-wisp...’

Kealey begins with dismissing the ‘linear model’ of Francis Bacon, that government-funded science drives technology, by showing historically that the technological advancements of skilled, uneducated workers in England (such as Newcomen, who invented the steam engine) or the western European barbarians (who invented the saddle

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<sup>xiv</sup> This section draws strongly from [http://www.analogzone.com/col\\_0210.htm](http://www.analogzone.com/col_0210.htm) a review of Kealey’s (1996) book by Dennis Feucht. See also [http://www.scienceandyou.org/articles/ess\\_09.shtml](http://www.scienceandyou.org/articles/ess_09.shtml)

and domesticated the horse for farm use) drove technical advancement that led to scientific investigation. Basic science today contributes about 10 % to new technology; 90 % is driven by existing technology, just as old science largely drives new science. Indeed Kealey argues that 'the industrial revolution was created by men looking for solutions to very particular problems - men who had the economic freedom and the economic incentive to invest their time and resources in experimentation and development.' Kealey (1996) further illustrates with Eli Whitney's cotton gin. Technical progress relied instead upon the inventiveness of local engineers relying upon technical know-how addressing here and now problems.

'The irrelevance of academic science to technological or economic development during the eighteenth and nineteenth centuries can best be illustrated by comparing Britain and France.' England only had two universities, Oxford and Cambridge, 'mouldering into dust,' in Oxford alumnus Edward Gibbon's (1737-94) words. In contrast, in France a generous State assured the best-equipped scientific laboratories in the world. By the early 19th century, engineering was only a skilled craft in England, but had been established as a profession, with schools and formal exams in France.

Yet, Kealey (1996) concludes, 'it was Britain, not France, that produced the Industrial Revolution', to understand why leads to an examination of the economics and history of science funding. The essential difference between the two countries was that the British government adopted laissez faire policies, whole classes of taxes were abolished, and government withdrew from almost any function except defence and justice. The Royal Society was left to sink or swim. In contrast, France embraced dirigisme and the State ran every aspect of French society. Yet Britain grew rich and France remained poor.

### **From Mechanics Institutes to WEA's and Adult Education provision**

While Britain did not follow Europe with its Ecoles and technical schools (esp. in France and Germany) it did between 1820 and 1840 establish something quite unique. Something that in effect out-competed its European counterparts that are the British Mechanics Institute. In fact in this twenty year period it established some 700 such institutes Kealey (1996:117). Costs were fully met by industry and students Britain still eschewing the high taxes of continental Europe and the associated Government sponsoring and funding of 'pure' research and 'technical schools'<sup>xv</sup>.

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<sup>xv</sup> **Mechanics' Institutes** originated in Edinburgh in 1821 and soon spread to the rest of the British Isles and throughout the world. They sought to give skilled working men education for life and work, providing lectures, classes, libraries and even museums. **Australia's first mechanics' institute was established in Hobart Town in 1827.** This Van Diemen's Land Mechanics' Institute had a chequered early career, but flourished when the Presbyterian Rev John Lillie became president in 1839, his lectures providing 'the high-water mark of learning publicly disseminated' in the colony. **But mechanics stayed away, repelled by the exclusivity and paternalism that pervaded the Institute.** Unable to repay its debts and losing support, it folded in 1871. **Early Mechanics Institutes were often associated with protestant churches** e.g. the Scotch Church and Mechanics Institute 1821.

The most successful mechanics' institute was established in Launceston in 1842 with the support of Congregational minister, journalist and historian John West. From private and official sources, £8000 was raised for an institute building, designed by eminent architect WH Clayton. This Italianate edifice remained the centre of culture and an ornament to the town until demolished in 1971. Its books and periodicals became part of the

Subsequently in terms of the provision of Adult Education as the Mechanics Institutes faded in significance they were replaced in Australia in the late 1800's and early 1900's by the Workers Education Association<sup>xvi</sup>. Some WEA's remain to this day however they are largely extensions of the TAFE system and it's institutionalised, formalised and commodified and specialised forms of industrial training.

### So Pure Science can and probably largely is be driven by hobbyists i.e. the Bush Mechanic or Artificer

When Britain did turn to science, it was not funded by government but largely by hobbyists, industry, and private endowments of university science. Hobby scientists included: (1) **Henry Cavendish** (1731-1810 discovery of Hydrogen, calculation of the Earths Density and early explorations of electricity: [http://en.wikipedia.org/wiki/Henry\\_Cavendish](http://en.wikipedia.org/wiki/Henry_Cavendish)), (2) **William Parsons** (1800-1867, astronomer who in the 1840's, personally handmade the largest reflecting telescope in the world of 6ft or 72 ins which remained the largest until the early 1900's: [---

city's public library. Less impressive but still noteworthy were the Franklin, Huon, Don, Waratah, Port Esperance, Ellesmere \(later Scottsdale\), Emu Bay, Ringarooma and Queenstown mechanics' institutes. The word 'mechanics' did not form part of the name of the Bellerive, Campbell Town, Devon, Glenora, Green Ponds, Hamilton-on-Forth, Lefroy, Oatlands, Sorell, Stanley and Wynyard institutes, but they had similar aims to mechanics' institutes.](http://www.askaboutireland.ie/reading-room/life-society/science-technology/irish-scientists/william-</a></p></div><div data-bbox=)

Related but short-lived societies included the Tasmanian Society for the Diffusion of Useful Knowledge (Launceston, 1831), the Tasmanian Society for the Acquisition of Useful Knowledge (Hobart Town, 1845), and the Mechanics' School of Arts (Hobart Town, 1850).

Most mechanics' institutes failed in their educational aims and became congenial places of resort for middle-class patrons, including women. The libraries pandered to their non-demanding tastes, and lectures proved less attractive than musical performances and entertainments of various kinds, such as penny readings. While institute buildings have survived, sometimes as community centres or libraries, the worthy ideals of the founders – self-improvement, self-discipline, class co-operation and cultural egalitarianism – have long been forgotten. [http://www.utas.edu.au/library/companion\\_to\\_tasmanian\\_history/M/Mechanics%20Institutes.htm](http://www.utas.edu.au/library/companion_to_tasmanian_history/M/Mechanics%20Institutes.htm)

<sup>xvi</sup> **Workers' Educational Association** (WEA) was formed in England in 1903 by Albert Mansbridge to provide higher education for the working class, whose needs had been abandoned by **mechanics' institutes** and then abandoned a second time by the the contraction and formalisation of the **University Extension movement** of the early to mid 1900's. Mansbridge, who believed that the social order could be changed by education and not conflict, spread his message to Australia in 1913. In Tasmania the **University** was receptive and appointed Herbert Heaton, the secretary to the newly formed Board of University Extension, to teach history and economics to the newly created and voluntary WEA. Interest spread to the north and west and tutors were appointed. Student numbers rose to 540 in 1929.

**Classes were held in subjects such as modern history, literature, psychology, industrial management, political science, economics, Australia and the Pacific, geology, the Middle East, Tasmania's economic problems, electricity and its applications, capital and capitalism, and law and democratic institutions. In the 1930s lectures and tutorials were supplemented by debates, play readings and lunchtime meetings at factories.** One tutor, the communist Esmonde Higgins, remembered regularly talking to thirty men at the Launceston Railway Workshops about 'everything under the sun' related to current affairs. In the late 1930s Premier Albert Ogilvie felt the WEA was not providing workers with a suitable education, and government support waned. Weak leadership from the centre exacerbated ill-feeling. Government reports in 1945 and 1947 concluded that a new structure for adult education was needed and from the 1950s the **Board of Adult Education** took over from the underfunded WEA as the main supplier of adult education. [http://www.utas.edu.au/library/companion\\_to\\_tasmanian\\_history/W/WEA.htm](http://www.utas.edu.au/library/companion_to_tasmanian_history/W/WEA.htm)

Today this Board of Adult Education approach has all but disappeared itself to the point where Queensland does not have an BAE nor an official State Adult Education Policy – all has been absorbed into the industrialised, centralised, authorised, structured, formalised TAFE system utterly devoid of any glimpse of skills for active citizenry.

[parsons-third-ear/](#)), Royal Society president from 1848-54. (3) **Charles Darwin** (1809-1882 Theory of the Origin of the Species: [http://en.wikipedia.org/wiki/Charles\\_Darwin](http://en.wikipedia.org/wiki/Charles_Darwin)), (4) **Albert Einstein** (1879-1955 Theory of General Relativity: [http://en.wikipedia.org/wiki/Albert\\_einstein](http://en.wikipedia.org/wiki/Albert_einstein)),

The increasing wealth of Britain enabled thousands who, due to low taxes and minimal government control, passionately took up science as a hobby. Kealey (1996) argues that neither Cavendish nor Darwin would have survived in a modern university any better than did Mitchell, yet they were scientific giants...'

## Dirigisme

Indeed Einstein, Barbara McClintock, Wilson, Penzias, and Bednorz were all Nobelists and all were either hobby scientists or were working on practical technical problems. Kealey opts for the alternative theory of Adam Smith over Bacon that science and technology flourish in countries with free markets lacking government subsidisation and direction (dirigisme) of either. Governments have this pathological obsession with one size fits all and control of outputs not outcomes manifest in their dirigisme – which is based on (1) the Rousseauian belief that *since only the State incorporates the General Will only it is moral enough to mould young minds*. [this is Germanic Romantic Nationalism at its best - also (2) Hegel – *the state walks with God*; (3) Robespierre of the father of the French Revolution – *Rousseau* (rather than Adam Smith) *is the teacher of mankind*, (4) Lenin, Stalin, Mao and Mussolini - *everything within the State, nothing outside the State, nothing against the State*, and (5) the poet Southey – *the moral improvement of the people is the State's first great duty*]. He illustrates this thesis in some historic detail from the remarkable rise of England as a prosperous land, contrasted with countries on the continent which were dominated by government economic control<sup>xvii</sup>. Kealey (1996:342).

For Kealey (1996:19ff) dynamic civilisations have depended on the autonomy and agency of the individual not the control of or by the elite. A crucial aspect of this agency is enterprise freedom of enterprise and in this regard he argues that history shows that a free society and free market is a crucial precursor to endemic social innovation.

## Government ~ from Prudential Referee to Competitive Service Provider

One of the great tragedies of Modernity is Nationalism and one of **the greatest tragedies**

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<sup>xvii</sup> Any economy in which the government exerts a strong directive influence; a centrally planned economy. 'These agents, for the same distributional and paternalistic reasons that motivated many of the socialist experiments in economic **dirigisme**, may seek to use political authority to modify, at least in part, the results of the market system.'; James M. Buchanan in *The Minimal Politics of Market Order*, pp. 222, (1991); *Cato Journal* 11:2. More recently authors have identified a move from Government ownership with no market, to Government planning for the 'reform and direction' of the private sector market (generally considered to be the origins of the dirigisme concept) to regulation the market to ways (via. regulation) to supplement and nuance rather than control or eliminate the market. 'Market Failure' is often used as the justification for such dirigisme's.

While this is accepted in the macro sense of public goods however when micro management by regulation occurs innovation and local response and flexibility disappear esp. as in Australia in for instance the Childcare and the Job's Network areas – both of which I have extensive senior management experience. Currently case studies in the abject failure of dirigisme are the UK and Taiwan, the jury is still out on Korea, and previously the successes were the Asian tiger economies and more recently the Arab Emirates. <http://www.cato.org/pubs/journal/cj17n2-6.html>

**of Nationalism is that it (1) collapses Governance into Government and (2) removes it from its role as society's referee** – one that intervenes on behalf of the weak and to establish and enforce rules of fair play – **by transforming it into a provider.** Once a provider the Government has an interest in directing research, and operations thus picking winners, exploiting its workers, skewing statistics and directing research for instance it seeks to steer attention away from innovation and any dodgy business dealings it has had, rather than being the umpire judging the rules of the game established by the people for the people and accountable to the people. Kealey (1996:327).

Authors such as Kealey (1996:304) argue and quote research to support the rationally outrageous claim that **90% of wealth-creating research emerges from applied**, not pure science and research.

### **Oikonomia rising**

***Oikonomia rising A: The Shed as a mini Zone of Applied Research:*** My argument is that this was the case at the beginning of the Industrial Revolution and still is – unfettered curiosity and freedom to pursue this drives innovation through lots of local level innovations rather than centralised Government sponsored top and trickle down research. Here the shed becomes a lone zone of Artificer innovation. This in my mind confirms the bushy is a genuine authentic subset of something that comes from a heritage that is a lot lot more than reactive, instrumental and derivative. The practical urge to innovate transcends the narrow and technical distinctions between pure and applied research and I believe goes to the nature of what it is to be human indeed a 'human right'.

***Oikonomia rising B: Artificer Home based Innovation and production:*** As the economy melts down as the monetary system implodes with the consequence of the big machine age evaporation, I prognosticate that production proper<sup>xviii</sup> will move back into the home. Here Oikonomia will reassert itself.

At present with the percent of Australian's in the Labour Force (civilian population aged 15-64) who are involved in Artificering is estimated at 20% est. and of this those who can use hand tools skilfully (excluding professionals such as surgeons and dentists etc.) would be one half of this figure i.e. 10%. [Vocational Labour Force cp. Avocational Labour Force].

So home production will include such basic items as food (some), water (all), electricity (say 1/10<sup>th</sup> of all electricity prod required), repair (most), and can include manufacturing (1/10<sup>th</sup> of all manufacturing) and employment at one job per household in a dual/parallel economy then (all).

### ***Oikonomia rising C: Home eco-nomics as ground central in the emergent local economy:***

In this sense home based physical economy can produce most of the day to day needs of most of the population. This dream has been largely unrealised since the 1960's as we all

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<sup>xviii</sup> This is manufacturing production proper not only basic food can clothing items – arise the village economy. Here salvage/reuse becomes a critical feature as ever of Oikonomia.

became reactive compliant consumer rather than proactive innovative citizens. My work in this arena has spread over the past 40 years since my undergraduate studies in economics cumulating with an honours degree therein in Regional Economics and then working in Local Government Department Research Finance section.

Subsequently I worked in the Training Commission Queensland in developing and implementing local employment programs. These included Self Employment Ventures, Local Employment Studies, Innovative Community Employment Program, Community Employment Incubators and so forth. In Queensland the program was trounced, as indeed as it was all round Australia, in the early 1990's by the triumphant economic rationalist Australian National Training Reform Agenda.

In its heyday from the late 80's to early 90's the Employment Directorate, of which I was the Director, assisted some 4,000 unemployed people set up around 1000 small enterprise self-employment ventures at a total cost of around \$10maud. Further some 200 groups were assisted in the various other forms of local employment and economy development projects. This involved some 120 staff in 20 locations throughout Queensland.

Embryonically these do comply with, and possibly emerge from, the six artificer logic base principles articulated below. Certainly they do provide a community base, albeit somewhat top down, for local community employment generating Exemplar Projects to emerge largely within the civic not private or commercial space.

**The Bushy and Structural Unemployment:** In the early 90's I self-published a series of booklets on Community Economy Development (CED) – six booklets each using action learning to enable communities to undertake a particular aspect of CED. And later my doctorate was in this arena seeking to incorporate what is known as 'demand side labour market programs' or 'enterprise based labour market programs' as a part of a strategic response to structural unemployment. See Wildman (1997). I suggest the importance of such an initiative will emerge again in our Post GFC world. Subsequently a colleague and I published a CD Rom on the use of Action Learning Circles for Community Economy Development that integrated all my experience and work and studies and publications to that juncture (mid 2010's). Wildman (1997), Wildman and Schwencke (2005).

## Chapter 7: Parable of the Artificers Journey

### Parable

It's like we are living in a tenement building which is falling to bits around us and with several of our friends can see this crack up and we yearn for an alternative. When we look out of our window we can our destination in the distance or even across the road say on the same floor of another tenement building. Like we recognise a friend in a window of a nearby building but we can't go there unless we go down to ground floor journey to the other building then travel up to her level. After wards to return home we have to retrace this journey.<sup>xix</sup>

We can't simply go there further we can't simply wish ethereal ourselves there somehow we have to get to there from here. First we must recognise this and second we have to go down to the ground floor before we can start our journey. This is analogous to a psychological depthing process – the first one. Once we do this then we can start the journey to our destination across the road then we travel up in the lift to her level (the second depthing process) and join her in her 'world'. When we wish to return home to spread the word so to speak we have to retrace this journey – a third and fourth depth experience. [Also see James Howard Kusntler who has written a book called 'World Made by Hand.' [www.worldmadebyhand.com](http://www.worldmadebyhand.com) about an artificer in a post oil future]

### 10 ways to increase the chance of the acceptance of one's Exemplar Parable/Project

I have found the likelihood of any project being 'successful' increases by including the following sources of wisdom:

1. Those who have authority to sanction, approve, or block what we are attempting,
2. Those with professional expertise (from multiple facets eg Sociological/Cultural, Technological, Economic, Environmental, Political, Psychological) in the area,
3. Those with local indigenous knowledge,
4. Those who will need to build, install, implement or maintain what is being considered,
5. Those who will be the beneficiaries or victims of the proposal,
6. Disinterested and dispassionate observers who consider our project from a more holistic and global perspective,
7. This holistic perspective include a narrative/myth/story around the project
8. The project is see as Intelligent Narrative Play by the involved kids and adults alike

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<sup>xix</sup> The Neverending Story comes close to this process. In this fantasy world the nothing as the ghost in our Zeitgeist machine is eating our everything of the manifest world. Analogous to the hero's return story though different in several key attributes.

9. And, not least, our grandchildren's grandchildren.

[Drawn from discussions with Ian Plowman – Brisbane 08to09-2009]

### **10 ways to increase the value of learning from one's Exemplar Parable/Project**

1. They are dialectic and field based rather than didactic or classroom-based.
2. They develop contextualized and useful theory rather than test de-contextualized and impartial theory.
3. They invite learners to be active participants, leading often to change in the self and in the system in question.
4. They endorse reflection-in-action rather than reflection-on-action.
5. They emphasize meta-interface-competence over competence.
6. Learning tends to be facilitated rather than taught.
7. They espouse the development of double-loop rather than just single-loop learning.
8. They welcome the contribution of tacit knowledge to practical knowledge through experiential learning.
9. Their measured learning outcomes are more often practice-based rather than academic.
10. They are comfortable with tentativeness rather than certainty.

[Drawn from Raelin (2009)]

## Chapter 8: Techne

**Challenge to the replacement of human techneque with mechanical technique, and is homologue the replacement of economeque with economique over the past 3 centuries of the Industrial Revolution as relevant to a reconstruction of modernity.**

**For the past three centuries**, the key to prosperity has seen the replacement of human techne with mechanical technique based on petroleum energy, the replacement of hand knowledge with book knowledge. In the past 50 years we have moved from this petrol based information economy and presently the knowledge economy both still based on the industrial ethos of replacing techneque with technique. Greer (2008:89).

This has allowed us to build centralised abstract bureaucratised social control structures and design human habitations based on this cheap petro energy, and completely distorting the role of the physical economy in two key ways (1) through the over-reliance on abstract notions of credit and collateralisation etc. we have expanded the financial economy unsustainably to a point now where it is cannibalising the physical economy to a point where it threatens our noosphere and (2) with the pathological obsession on pricing scarce raw materials such as oil as if it were free we have distorted the physical economy to point where it threatens our biosphere. Unlike the Neolithic movement **from** stone to bronze we have not moved on **from** oil.

**For three centuries, as a result of the vast energy resources we've extracted from the Earth. Machines and their products have been cheaper than skilled human beings.**

The result is a habit of valuing things over skills and this led, ultimately, to our '*prosthetic society*' in which we're taught to neglect our innate abilities and then pay for their technological 'prosthetic' replacement. Greer (2008:122).

**For the past 3C's and esp. in the past generation** (from 1980) we have seen the abandonment of human abilities in favour of mechanical replacements of prosthetics. This is all based on cheap oil. Descent will reverse this - trend. Today ideas and entertainment have become a substitute for lived experience. Greer (2008:195-200)

One of the foundation stories the West tells itself is that of *progress* based on scientific objectivism which in turn is based on the valorisation of abstract knowledge as contrasted with concrete knowledge, ultimately of machine over hand of mind over matter. This has been a Western pattern, one indeed that Greer (2008:51-52) argues has now become all but invisible, since Plato's theonomy view that the most desirable end for a worthy citizen was to sit on heavens rim and listen to the Gods discourse (while leaving the physical economy to the slaves). Today we see this in the relativity of Higher Ed and Vocational Ed.

Modernity then, post Neolithic, has the following stories embedded in it progress, separation and domination of the world, separation of thinking and doing (abstract thought) leading to a prosthetic approach to technology, the replacement of human techne with mechanical technique.

As Eugene Peterson says in the Message 'We humans keep looking for a religion that will give us access to God without having to bother with people or engaged with the world i.e. we still look for God outside the world' [PW adapted]. In the past three hundred years as we have created a *prosthetic society, as a sub story of progress*, we have developed pedagogies to support this 'prosthetinisation' of humanity while systematically neglecting our potentials within our bodies and minds 200. We have switched off our human potential and switched on our prosthetic technology we need a technology that assists us achieve our human potential in both bodies and minds. 203

### **Techné as genealogical excavation**

Today many pundits are observing that 'traditional concepts and ways of doing things no longer work, and life is outrunning the pedagogies in which we train and have been trained'. Fischer (1999:456), Illich (1970, 1973, 1977). Moreover, today modernity and post modernity can no longer be spoken of as a singular both in terms of internally as new modernity's are generated, some in resistance to the technologically totalised and envelopment of community by modernity's technological prostheses, and some by being 'othered' by modernity such as third world, poverty, terrorist organisations and so forth.

Such an explosion in our technological prostheses has however not eliminated action all together rather it has transformed its foundation. We nonetheless can watch ourselves perform ungrounded ways of acting, ways such as cloning, that while grounded in the logistical now they are not grounded in the ethical or foresight now that have both social and ethical weight and consequences. In this regard we cannot deny that they are in a sense nihilistic.

The new is, according to Fischer (1999:472) never without historical genealogies, but these often require reassessment and excavation of their multiplicity. To do this excavation we need to develop a notion of communication among subfields of physics and engineering that utilise, borrowing two terms from anthropology, creoles and pidgin languages in 'contact zones'. Some of these creoles are material instruments and practices rather than language. **So that in this sense of genealogical postmodern excavation the bushies bench as pidgin speaks of a rediscovery of a layer of meaning largely lost in its original historical context, and the product of the bench so to speak, the exemplar project, becomes a postmodern archaeological artefact capable of multiple interpretations and that speaks with multiple voices to multiple audiences.** [Most audiences though, 99%, would simply avoid it in favour of their twittering iPods or see this project as simply rustified bucolic atavism, or even a case of attempting the re-emergence of Dr Pangloss the noble savage] This 'excavated layer of meaning' points to a kind of experience accumulation by the body (physiospheric) that is different from the cognitive knowledge of the mind (noospheric). Fischer (1999:462).

Fischer (1999:467) rebuts Heidegger's retreat to his mountain, to silence in the face of a technologised world, arguing that we can neither blindly become cogs in whatever technological developments occur nor withdraw from any engagement. We are embedded, ethically, as well existentially and materially, in technologies and technological prostheses.

### *Excavating the Neolithic precursor to dialectical materialism*

I argue that underlying the conceptualisation of Artificer is an epistemology centred on the reworking of the distinction between subject and object, which makes Artificer work to an extent incompatible with its antecedents such as empiricism. In counterpoint to empiricism, I suggest that Artificer philosophy, based on a form of dialectical materialism counters the empirical theory of *knowledge as thought* with a theory of *knowledge as engagement*. NB: here we note the difference with Marxist Theory which as *knowledge as product*. Here the synthesis is an emergent braiding of thinking and doing which ultimately regains its own authenticity and its own reproductive archaeology.

On the empiricist view, a knowing subject encounters a 'real' object 'out there' and uncovers its essence by means of cognitive abstraction and physiospheric experimentation. On the assumption that thought has a direct engagement with reality, or an unmediated vision of a 'real' object, the empiricist believes that the truth of knowledge lies in the correspondence of her, as subject, thought, to an object that is external to that thought itself. By contrast, I suggest that latent in an Artificer world view is knowledge at the intersection of *theoretical practice* and *practical theory* wherein subject (theoretical practice) and object (practical theory) are for example homologues or different sides of a rotating mobius strip.

It is my contention that through allowing for the simultaneous existence of these two interpenetrative dialectics we can glimpse the Neolithic precursor to dialectical materialism<sup>xx</sup>. In this view, the veracity of knowledge (noospheric) is not guaranteed by its correspondence to something external to itself (physiospheric), because Artificer dialectical materialism contains its own internal or self-referential methods of proof.

### **Community Economy Techne – economeque**

Three centuries ago, say in the early 1700's, money and its associated markets played only a minor role in the overall European economic picture. Until well into the 1700's, i.e. the beginnings of the Industrial Revolution, around 2/3rds of all goods and services in the Western world were produced by techne in the household and community economies. Furthermore somewhat akin to indigenous methods, these goods and services were exchanged in customary networks governed by obligation and reciprocity not market forces of supply, demand and price.

Most households produce the great majority of their own food, clothing, and other necessities, using surpluses to barter for speciality goods with local producers. Cash served as a means of exchange for things produced so far away that transport costs and spoilage made direct barter unworkable, it took cheap, abundant fossil fuel based energy to make

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<sup>xx</sup> I acknowledge much of what I write can be seen as intellectual hubris. Clearly such braiding also precedes the Neolithic into the Palaeolithic and beyond with the earliest stone axes at 1.4myBCE thus predating the Palaeolithic and emerging prior to, and in the ancestors of, Homo Sapiens itself. The Neolithic is used here as a sort of 'epistemic anchor' as this time incorporates prehistory and history as early writing had emerged by the beginning of thereof viz. stone instruments 1.4myBCE, cave paintings 25,000ybCE, then came 'incised counting tokens' in the fertile crescent at the beginning of the Neolithic – 9000yBCE (with the transition from hunter gatherer to agriculture, and finally in 4000BCE writing (and the wheel) emerged in Mesopotamia.

transportation so cheap the centralised production and distribution of these goods and services could take over the place of local production for local use. Greer (2008:141).

For me herein lies the dilemma of the west - not primarily that of cheap oil but of the valorisation of abstract thinking and its homologues which has led to the deification of intangibles such as the market, much supposedly 'higher' education, and the financial economy now over 100 times the size of the global physical economy. In these noospheric inflations and imagineering phantasms humanity loses touch with its essentially grounded nature and escapes in somewhat of an eschatological frenzy into the etherealisation of reality with tomorrow being valorised as 'otherworld'. Many many new and not so new age spiritual paths manifest this trend. That is we lose touch with the physical world.

In descent, positive communities there will need to be a certain moving on from oil and this will entail its reduction in use and replacement with other forms of energy inc. human. This is crucial as the present level of consumption and energy use is unsustainable. Simultaneously we will need to redefine economic to economy in a move homologous with that from technique to techneque viz. economique to economeque. Such a descent positive process sees many of the initial impacts from the descent initialisation as economic – CED – Community Economy Development inc. for instance a local regenerative economy inc. community currency (see for instance Artifista below in Appendix B). Clearly at this time once descent has commenced, well after displacement event, the frugal and ingenious reuse of existing resources will become vital this is the realm of the Australian Bush Mechanic.

### **Bushy Techne**

Attributes of an Artificer/Bush Mechanic approach to techne:

- 1 Durable
- 2 Field Maintainable by heuristics and readily accessible algorithms
- 3 Independent of other technologies
- 4 Replicable and repairable
- 5 Transparent
- 6 Inclusive and participatory
- 7 Robust interfaced but not integrated
- 8 Productive/efficacious
- 9 Long term sustainable - multiple reuse
- 10 Portable methods
- 11 Recognise it as an innate urge
- 12 Etymologiae<sup>xxi</sup> DIY compendium of bushy linked practical knowledge
- 13 Expression of direct or sauvage energy whereby thinking and doing are conjoined
- 14 Potlatch option (see below) to control the money supply and this control the exploitation

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<sup>xxi</sup> \* Etymologia - a time capsule as an encyclopaedia really a compendium of useful/practical/DIY knowledge pulled together by Isidore of Seville (560-636) a Christian Bishop and theologian in Spain, as the Western world was moving from the Roman times to the Dark Ages

[NB: Lovelock proposed an equivalent in 1998 however this could be according to Greer (2008:185-188) a two edged sword as this could stop inquiry and focus on the things not the process of inquiry - Green really is quite critical of this proposal of Lovelock to get a 'scientific equivalent of the bible'.

of the natural environment via. the monetary economy

15 Addresses the four fold principle emergent from the Grounded Research for this series.

Developed from my work and that of Greer (2008:170-189).

## Sauvage – aspects

The savage nomad gathering fruits and nuts for his tribe and the modern industrial magnate gathering other businesses for his corporation are alike in answering the call of the unborn tomorrow. Polak (1973:4)

### (a) *Sauvage Techne and the Volk Handwerker/Volk Verstehen*

Sauvage is used in this eBook as a form of common sense is the language that we use to harness our reality in all its unfathomable complexity, its sauvageness, often seen as ‘bruteness’ or ‘ignorant’ or ‘peasant-like’ is yet beyond our capacity to capture rationally. Bronk (2009:262). In this ‘sense’ of the ‘sense common’ sauvageness encompasses our modern narrow definition of rationality as well as sensibility and imagination. Here common sense can help us find a creative way through our messy reality in an environment of radical uncertainty. No scientific algorithm or heuristic is even remotely capable of doing this.

**Sauvage** is used in here in the sense of: wild, direct, honest and uncomplicated by unnecessary sophistication, folk understanding or volk verstehen i.e. common sense, volk handwerker and common hand<sup>xxii</sup>. Techne in the sense of: (1) citizens or volk responsibility with (2) hand extension not hand replacement the blending of head and hand viz. thinking and doing (3) hand extension means manipulated by a body not only a mind thus situating the body *in natura* [natura – from which the English word Nature is derived also means talent and talent in Latin also means metier i.e. field of work in which one has special talent. In this sense the hand represented a natural groundedness that interconnects us with nature and nature with us through our metier], (4) broad and deep skills i.e. 720° inc. understanding not just compartmentalised behaviour e.g. CBT, (4) creative design ability (PIDIL), (5) towards meeting community

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<sup>xxii</sup> As developed from Alexander (2005):

1. Direct
2. Uncluttered by unnecessary sophistication/intellectualism
3. Wild
4. Untamed
5. Original
6. Common sense/common hand – volk
7. Shared common understanding – volk verstehen
8. Un-weakened by civilisation/modernity (which separates thinking and doing)
9. Unencumbered
10. ‘As it comes forth’ or ‘like the thorn on a wild bramble’ it hurts in its authenticity - authentically from nature out not from nurture in to nature
11. ‘As it comes forth from itself’ - this is the savage dimension of ‘D’esign. This dimension is brutal in the sense that savage does not consider other sensibilities i.e. other face Alexander (2005:407) – this is the counterpoint to ‘impose’ i.e. emergent order cp. imposed order – something alien it has its own laws and it comes from its own internal geometrical coherence and emerges from its own centres. The emergence of geometric form is a visceral even brutal and indeed savage process 427 This unfolding then is a savage process wherein a thing stands in its emergent presence it is a thing unto itself. Thus savage raw or brutal harmony arises from design centres within the structure 428. This authentic unfolding leads to the expression of this deep and raw feeling.
12. Unconscious Archetypal character or quality. See Alexander (2005:640, 663, 676)

needs/priorities, and all this with (6) a weather eye on the big picture. Techne not = Technique<sup>xxiii</sup>.

### ***(b) Sauvage Techneque and Environmental Vibrancy***

Sauvage also has glimmers from the time that Rachel Carson (1962) alludes to viz. *the ultimate work of energy production is accomplished not in any specialised organ but rather in every living cell of the body. Yet all these billions of gently burning little fires spark the energy of life. 'Should they cease to beat no plant could grow upward defying gravity, no amoeba could swim, no sensation could speed along a nerve, no thought could flash in the human brain' said the economist Eugene Rabinowitch. The process by which each cell functions as a chemical factory is one of the wonders of the living world and indeed makes it all possible.* Carson (1962:200-1)

Here she speaks of in terms of considering the collective damage to mitochondria and ATP (adenosine tri-phosphate) and the vibrancy and vitality of a pristine environment now largely destroyed by chemicals and mutagens. One gets a glimmer man vision of a pristine indeed savage environment in a localised resilient diverse world with a sustainable carrying capacity say of 3b people and stringent controls of chemicals and what she calls biological mutagen magnifiers e.g. like DNA where a small dose can have massive permanent genetic impacts. What has taken several billions of years to construct we undo in a generation. Thus is the way of the savage.

We urgently need to apply our scientific techniques and techniques to restoring the savage balance in the environment.

[AUS2: *The Sauvage* has substantial detail therein on this topic – AUS – Artificer Update Series]

### ***(c) Sauvage Techne and Detached Knowledge***

Just as the scientist astronomer can contemplate the vastness of outer space and the psychologist of inner space, both from within the pond so to speak and both with engaged experimental empirical methods, both can, like the bushy develop detached and abstract knowledge through engagement. **Engagement does not preclude the development of detached, general, 'objective' or abstract knowledge in fact I argue the reverse if you can muck in and then reflex on that one can recognise the answer is both and** – detached and attached knowledge are linked just concrete and abstract thinking are and thinking and doing etc. For me this is the ontological beauty of experiential and thus action

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<sup>xxiii</sup> **Techne** is often translated as *craftsmanship, craft, or art* as an expression of *hand knowledge* in each instance this distinguishes it from *Technique* which relates more directly with technical. It is the rational method involved in producing an object or accomplishing a goal or objective. It also represents what may be called *sauvage teche* that is direct involvement in response to the 'call of the wild' so to speak as 'the Wild or Sauvage Exemplar Project. Frost (2006:124). The means of this method is through art. *Techne* resembles *episteme* in the implication of knowledge of principles, although *techne* differs in that its intent is making or doing, as opposed to 'disinterested understanding.' As such *techne* relates to *phronesis* (wise action) and *prohairesis* (choosing ahead wisely) viz. *technique* and its operation to the machine and *Techneque* to the artisan and her use of tools to shape her masterpiece and bring it into being (French influence). Thus *techne* is the ability to 'craft gaps' and bring things into being.

learning and research. Engaging the local does not condemn one to attachment, specific, provincial, subjective or instrumental knowledge. Rather I submit this is an urban myth long perpetuated by the cognoscenti seeking continuation of their stipends and university tenure.

As Carl Sagan (1980) said ‘we are all stardust’ each one of us is made of star matter what is without is within we are all glocal beings even universalocal. RIP Carl.

It is my sincere hope that readers and reviewers of these works won’t get hung up on this issue of detached/abstract/objective knowledge and thus condemn this Bushy approach as at best a misguided, partial and confused approach. I submit that the Bushy is also all of these and more it is a legitimate third path to knowledge – itself as partial, fallible and incomplete, however it has long been denigrated and disgraced far far beyond what is justified if at all.

#### ***(d) Sauvage, Barbarian, Pagan, Volk – what could a sauvage society look like?***

(If) We need a *sauvage*/'wild' hunger, *and we do*, to quench our ontological thirst a dialogue with place that creates wholeness that we feel, as *eros even* ecstasy then we also need a *sauvage*/wild history to satisfy our being in time, This is an active living remembered history and not a facticised accumulation of dead, inert ‘otherness’. Wexler (2000) *adapted* (PW), quoted in Bussey (2008:163). This ‘wild hunger’ is one where thinking and doing are braided they are not conceptualised dualistic in the classic Western ‘either or’ manner.

Today we think of the primitive as a ‘barbarian’ (outside the gates (north of Rome), inhuman, person in a ‘savage’ state, non Christian (pagan), foreign i.e. ‘other’) or a ‘savage’ (savage, uncivilised i.e. ‘other’) a ‘pagan’ (rural, civilian, peasant, heathen, non Christian i.e. ‘other’) and a member of the disparaged ‘volk’ (the people moved by sentiment and common sense not abstract theory, largely uneducatable, peasants and disposable riff raff’s). And in each instance ‘other’ is pejorative. Even today, it is estimated that even up to 1/4er of the 6B of us would come under this tripartite rubric, inc. indigenous tribes and cultures. There is some evidence of a Celtic script unrelated to the Arabic script we use today, by around 1000BC.

Yet if we look into the etymological origins of savage from *sauvage* as above or the historical origins of the meaning of the word we see the derogatory spin essentially comes from the political hegemony of Rome and her historians. The word is onomatopoeic, the bar-bar representing the impression of random hubbub produced by hearing a spoken language that one cannot understand, similar to blah blah and babble in modern English. Barbarian and Sauvage to my mind simply mean ‘other’. **Take for instance the Celts, long considered barbarians by the Romans for instance for centuries the Celts had, even before Rome existed, certainly up until say 50AD:**

**(1) A far larger region of influence** - though not centralised, than Rome

**(2) Far more advanced calendar**

**(3) A vastly superior road network** - and designed differently not all roads led to Rome as Celtic the vast prehistoric Celtic road network as multi-nodal linking 50+ walled cities, all across Europe and England and Ireland and Scotland down to the Mediterranean including

Spain and east to the Balkans, all of roughly equal size, the largest being Bibracte in France, central Europe.

(4) A vastly large and differently developed **socio-economic system** (localism cp. empire), **A more extensive and sophisticated and multilateral trading network**

(5) **Advanced building and astronomy** - see New Grange <http://www.knowth.com/newgrange.htm> and Stonehenge - built hundreds of years before even the Pyramids

(6) **Metal works foundries** so sophisticated and of such beauty and delicacy and indeed lethality the for centuries the Romans traded with them peacefully

(7) **Equality** - extremely high status attributable to women whereas in Rome and ancient Greece women were not even citizens. – the Vix site in France.

**Source:** See also Jones (2006).

(8) High respect for the learned inc. artisans

(9) A sense of closeness and immanence between the natural and supernatural

(10) Thin boundaries between the sacred and the secular

(11) Love of nature and a passion for the wild and elemental as a reminder of God's' gift.

(12) A philosophy wherein humanity was part of nature not apart from nature

(13) Love and respect for art, craft and poetry

(14) A mandate for hospitality

(15) Care and concern for the needy inc. disabled

(16) Oral transmission of history.

Likewise with the Persians (who had a more non-authoritarian governance structure that embraced diversity unlike the Romans) and the Greeks who invented the stone building systems, computer, astrolabe and military artillery and not the Romans, many so called 'barbarian' tribes were far more advanced than the Romans everywhere. In turn many of these innovations drew from more ancient roots such as the Egyptian and Sumerian empires. So in many ways, it can be argued that, the Romans are the pagans who when they see the 'other' they simply destroyed it.

Mores the problem even regret because then the Roman empire aligned itself with Christian imperium and the death of millions of innocent humans and the burning of the libraries of Alexandria and elsewhere ensued. History however is always that of the victors and so for us today it seems Rome was 'the' civilising force in ancient times keeping out the hordes of savage cp. savage 'wildmen'. Nothing could be further from the truth.

Even today in French the tearaway child or wild child is called L'enfant *Sauvage*. Indeed the movie *Fantastic Planet* (French: *La Planète Sauvage*, lit. The Savage Planet) is an animated 1973 science fiction feature film directed by René Laloux, production designed by Roland Topor, written by both of them and animated at Jiří Trnka Studio.

### ***(e) Sauvage Learning – what could a sauvage pedagogy look like?***

Some of the distinctive features of Indigenous knowledge and pedagogy are learning: (1) by observation, and (2) by doing, (3) through authentic experiences and, (4) individualised instruction, and (5) learning through enjoyment viz. intelligent narrative play. Indigenous pedagogy accepts students' cognitive search for learning processes they can internalize, and Aboriginal teachers allow for a lag period of watching before doing. Indigenous

knowledge is both empirical (that is, based on experience) and normative (that is, based on social values). Battiste (2002). Clearly the Artificer and Apprentice both use each of these five criteria.

In this context *sauvage*, indigenous or first nations pedagogy('s) embrace both the circumstances people find themselves in i.e. their lived lives **and** their beliefs about those circumstances in a way that is unfamiliar to dualistic objectified Eurocentric knowledge systems, which distinguish clearly between the two. As a system, it constantly adapts to the dynamic interplay of changing empirical knowledge as well as changing social values and changing seasons. Caution is therefore advised before petrifying, oversimplifying, or mystifying Indigenous knowledge systems by stressing their normative content or 'sacredness'.

### *(f) Sauvage Food and Sauvage Garden as Sites of Resistance*

On one hand French food may be seen as distinguished by the taste brought to the food by the master chef's preparation whereas the Japanese master chef is distinguished by it being impossible to determine whether he has done anything to the food presented in all their savageness. Likewise a garden may be highly formal or it may be 'untamed', 'wilderness' or 'sauvage'. I submit that discourses such as this can provide a process of *bildung* viz. practical or even **sauvage sites of resistance** to modernity's unidirectional trajectory of big better best viz. Wilber's 'one way' conveyor. Judge (2010: 158-160). Indeed in the 1990's there was an extremely successful duo band called 'sauvage garden' and the delicate yet raw music they made reminds me of 'musical sushi'.

Food security is enormously important. And can be seen in growing and distribution chains **economy with the physical economy** and making the availability of the latter depend on the former), patenting of genes and seeds, and massive distribution chains (oranges from China etc.) and corporatised (long gone is the midsized family farm). Clearly, in these circumstances, a DIY Artifista type decoupling **resistance response** of grow it yourself is 'go'.

### *(g) Sauvage 'Chiro' Ingenuity*

Here we see the essence of *chiro* epistemology or 'thinking with your hands'. This is explicated elsewhere in this eBook as the key reason for our emergence as humans i.e. *Chiro* drove *Cogno* – the hand drove the head – dexterity enhanced our brain capacity not the other way round. This is one of the key research findings of this decade long Action Research project as documented in this eBook series.

### *(h) Sauvage Pedagogy as Educational Decolonisation*

The task of decolonizing education requires the centreing of an Indigenous renaissance and its empowering intercultural diplomacy. I acknowledge as a white Australian I represent this very modality I seek to get beneath. Increasingly as I have explored this topic over the past decade I have become aware of the links between the *sauvage*, bush mechanic and the indigenous none less than with respect to the above five key aspects of indigenous pedagogy.

This is a fourth path away from status quo pedagogy with its (1) higher education, (2) general education and, (3) vocational education to (4) *sauvage* education. This was the pedagogy of

the Celts and remains that of much tribal learning. Modernity has not obliterated the archaic not in its 'othering' nor in our own midst. Indigenous learning and Artificer Learning live on. I submit now it the time for its renaissance.

**This is a key rationale for this eBook series**, however my personal severe limitation both in intelligence, race, class and gender is acknowledged, and as a citizen and human though I still plead my case. Please dear reader don't throw the bush baby out with the bathwater.

### **Jubilee Year as capital devolution techne**

In ancient Judaism every 50 years, money which had become centralised in a few (money changer) hands had to be re distributed to all in the society inc. the poor. This prevented the centralisation of capital.

### **Potlatch Techne and the limitation of capital growth in indigenous cultures:**

**Techne** has another dimension in that in many indigenous societies capital or other expressions of supreme value after accumulating for some time, was then destroyed or distributed to others, e.g. as in the North American Indian indigenous potlatch societies.

A **potlatch** is a festival ceremony practiced by Indigenous peoples of the Pacific Northwest Coast in North America, along Pacific Northwest coast of the United States and the Canadian province of British Columbia. This includes Haida, Nuxalk, Tlingit, Tsimshian, Nuu-chah-nulth, Kwakwaka'wakw and Coast Salish cultures. **The word comes from the Chinook, meaning 'to give away' or 'a gift'**. It is a vital part of indigenous cultures of the Pacific Northwest. It went through a history of rigorous ban by both the Canadian and United States' federal governments, and has been the study of many anthropologists.

The potlatch is a festival or ceremony practiced among Indigenous peoples of the Pacific Northwest Coast. At these gatherings a family or hereditary leader hosts guests in their family's house and hold a feast for their guests. The main purpose of the potlatch is the re-distribution and reciprocity of wealth.

During the event, different events take place, like either singing or dances, sometimes with masks or regalia, such as Chilkat blankets, the barter of wealth through gifts, such as dried foods, sugar, flour, or other material things, and sometimes money. For many potlatches, spiritual ceremonies take place for different occasions. This is either through material wealth like foods and goods or immaterial things like songs, dances and such. For some cultures, like Kwakwaka'wakw, elaborate and theatrical dances are performed reflecting the hosts' genealogy and cultural wealth they possess. Many of these dances are also sacred ceremonies of secret societies like the hamatsa, or display of family origin from supernatural creatures like the dzunukwa. Typically the potlatching is practiced more in the winter seasons as historically the warmer months were for procuring wealth for the family, clan, or village, then coming home and sharing that with neighbours and friends.

Within it, hierarchical relations within and between clans, villages, and nations, are observed and **reinforced through the distribution, redistribution or sometimes**

**destruction of wealth**, dance performances, and other ceremonies. **The status of any given family is raised not by who has the most resources, but by who distributes the most resources.** The hosts demonstrate their wealth and prominence through giving away goods.

Celebration of births, rites of passages, weddings, funerals, namings, and honouring of the deceased are some of the many forms the potlatch occurs under. Although protocol differs among the Indigenous nations, the potlatch will usually involve a feast, with music, dance, theatricality and spiritual ceremonies. The most sacred ceremonies are usually observed in the winter. The ceremony's were banned for instance in Canada from 1884 to 1951 and can be critiqued as nothing more than Bronze age hoarding.

It is important to note the differences and uniqueness among the different cultural groups and nations along the coast. Each nation, tribe, and sometimes clan has its own way of practicing the potlatch so as to present a very diverse presentation and meaning. The potlatch, as an overarching term, is quite general, since some cultures have many words in their language for all different specific types of gatherings. Nonetheless, **the main purpose has and still is the prevention of the concentration of capital through the redistribution of wealth procured by families.**

**This has the triple roles of solidifying social networks (often based on status) and limiting the money supply/growth of capital/expansion of fiscal and financial aggregates and mutual aid.** This then reduced the possibility of the financial economy from overpowering the physical economy both as far as economic cycles are concerned also in relation to reducing resource depletion. Further history shows us that societies that persist over time have social mechanisms for limiting capital growth i.e. they limit the monetary economy through cultural mores such as Islamic limits to usury, to keep it within the bounds of sustainable physical economy. Greer (2008:237).

#### *Artificer potlatch – the bushy's attitude to commercialisation*

The Artificer/Bush Mechanic has a broadly potlatch idea to accumulation of capital. Life in this sense for the Artificer is meant to be convivial not affluent. This has been brought home to me in my researchers time and time again. Frequently this approach utterly bewilders most of us, as indeed it did me in the early years of my exposure to the Bushy. Over time and with substantial research and personal experience in undertaking an exemplar project one comes to understand this value/characteristic is deeply rooted and has a long and venerable and yet in regard to late modernity from 1950 on, largely voiceless cultural heritage even anthropology. As it stops the concentration of capital in a society it is in this regard a form of potlatch.

#### *The Bushy's attitude to commercialisation and the emergence of a dual economy*

This value is in fact a key reason why a parallel economy is possible in that if we say well most, say 50%, taxation and debt inflation and interest is to inflate the monetary economy then a parallel/dual economy is possible underneath the formal one running say at 50% of

the formal hourly costs. That is \$40/hr cp. \$90/hr in the formal economy for tradies (tradespersons).

### **K-sere techne: The Bushy/Artificer as ecotone K-sere technology preceding and succeeding consumerist R-sere technology human ecology niches**

If we take a macro historical view of human habitation say over millennia then parallels with ecology emerge, in particular the ebb and flow of invader, occupier and decline species. Ecologists give the name *sere* to this complete 'geographically specific ecological life cycle' and in particular ecologists identify K- sere and R-sere the latter generally enter an environment with abundant resources and exploit this until the resources are depleted then they have to obtain new resources or go into decline and are often followed by a new series of species (the K-sere) that use available resources more efficiently and are often far less 'spectacular' than the initial colonisers.

In Appendix C, I explore using Greer's work the possibility that Bush Mechanics can be considered as a more stable species a K-sere species localist and reusing that comes from the past centuries, at least 300years ago+, and may well re-emerge to recolonise our R-sere ecospace (inc ecol and econ spaces) from within our R-sere consumerist recycle globalised world. In this sense we may also explore the concept of the bushy as ecotone or interface whereby a third path emerges as it always has been between Higher Ed and Voc Ed. An **ecotone** then, in ecological terms, is a transition area between two adjacent but different plant communities, such as forest and grassland.

### **Artificer Techne and the possibility of a Dystopian Artificer**

Artificer Techne is a specific application of the separate Techne concept. And in a sense depicts its quintessential application that is Techne applied by the Artificer. In fact these two are like over lapping circles one interdependent on the other and we search for the overlap a happy coincidence indeed. Other applications of Techne could be torturing, terrorism, shoddy building, drug running etc. The fourfold definition of Artificer, as developed from Grounded Research in this series, precludes these options. Indeed many of the Artificer techne's can also be applied to terrorism and as such a Jungian reading is possible in that Al-Qaeda and Taliban may be seen as our disowned selves of the modernists our shadow selves.

As we in the 'west' have sought to shed religious history and join the linearity of secular progress, we have left behind religion, the disowned has come back, as it tends to, in Jungian pathological forms. Our great challenge is not to let the Dystopian Artificers to use their myths and stories to define our reality – as we are doing at present. The explication of AT is at the heart of this eBook and indeed is a crucial piece in the whole Bush Mechanic/Artificer series. [Please see Bushy Techne above for a list of techne criteria].

### **Artificer Techne – timelines for its development – the 10000 hr heuristic**

Artificer Techneque I suggest takes and extended time to develop. If we take the Medieval Apprenticeships as an example of 7-10years, the Jesuits have a seven year period for a novice, and then we have approximately 15/17,000 hours for a Journeyman and 20/25,000hrs for a master tradesman. [@50hrs/week for 50 weeks of the year] Gladwell

argues strongly in this vein claiming, with evidence, that most luminaries take about 10,000 hours of practice to achieve mastery at 2000 hrs per year for a 40hr week this is at least a 5 year exercise. (Gladwell 2008:47).

Many current trades generally support this figure and take four years inc. a three week block of 8hrs per day in each year that is – a total of 2000hrs per year approx. inc. 75hrs blockx4blocks=300hrs direct instruction/tuition. On the other hand traineeships generally are in the 1500 to 2000 hr range.

As these figures indicated and I strongly maintain, mastery of the dual realms of the physiosphere and noosphere doesn't come easily and takes some 5-7years of application of around 2000hrs per year.

In my limited involvement I recorded some 1500hrs for myself in building my exemplar project i.e. the boat plus 1000 in my apprenticeship boat and its use and maintenance over 5 years, then some 500 hrs planning and discussing and exploring options inc. some 10,000kms travel to locate and explore chosen options, while the Artificer I assisted spent a similar period that is 3000hrs myself and 1500hrs for my Artificer colleague all up. This is, for me, at best 1/3<sup>rd</sup> of the time required according to the above calculations.

**Nevertheless this process strongly indicates just how much effort and application to task diligence is needed to reach wise dexterity, let alone build an exemplar project therewith.**

**NB1: This is indeed a tough call for modern youth** – this call to life vocation the requirement of dedication requires a strong sense of agency and belief in the ethic of the future whereas all we see today is the creed of rank greed and incompetent politicians. It's hard not to agree with them that such a life vocation is not 'wor(k)th' the effort.

**NB2: Higher Ed equivalent – the Undergraduate Degree.** As a proximate comparison to 'higher' ed. – a basic undergraduate degree full time takes four subjects per semester thus 8 per year for three years thus 24 subjects. Each subject with three modules of 50hrs each (150hrs in total inclusive of reading, attending lectures, researching and writing – an assignment) totalling some 3500 hrs – still 1/3<sup>rd</sup> to 1/5<sup>th</sup> of that required for mastery of a calling that involves the physiosphere and the noosphere. [from my experience in the mid to late 1990's as an Australian Academic lecturing in social sciences].

**NB3: Recognition of experience.** Fn 1 indicates why it is so important to recognise experience as part of expertise. Academia today is unable to do this recognising only published articles etc. To redress this experience needs to be recognised (1) horizontally – years and different areas, and (2) vertically levels of management and responsibility for budget, staff and development.

### **Techne and Laissez Faire**

While not seeking to be definitive I posit that a strong case can be made for the efficacious operation of Artificer Techne whereby hobbyists are allowed to pursue (1) their own (2) big picture question. In the section, in this eBook, on pure V's applied science we see the importance of the latter for efficacious technological progress with the latter being

progressed by Artificer scientists several of whom Kealey (1996) submits have become Nobel Prize winners.

In this regard, in Laissez Faire, it can be argued that one has the counterpoint to elite science, a counterpoint that allows the hobby scientists to use their 'techne' to 'do their thing' in the context of the global problematique/big picture as they see it. This is a case of applied science parallel processing and I salute this energy and approach.

Generally speaking LF augurs for maximum individual and community freedoms without overbearing Government controls or taxation. The critical weakness of LF is vested interests esp. such as large transnational corporations who are outside the realm of Nation State control. This is the reason that I suggest either (1) a more confederated approach of regional communities (decrease the power of the Nation State) with reduced international monetary activity inc. for instance buy local etc. or (2) a reinvigorated Nation State system with serious and accountable international governance structures. In both instances LF is feasible.

This is a strange juxtaposition indeed techne (idiosyncratic to a point yet anything but laissez faire) within a LF system context.

### **Techne in Praticke Techne (physiosphere) a parallel of Maieusis in Nous Noein (noosphere)**

Techne is about being present practically by and in ones works. This is a disappearing phenomenon in late modernity. This lost art is in a sense a physiospheric parallel of a noospheric one that of *Nous Noein* – **wisdom from one's other self or mind minding or the moment of eternal return (close to Zen) or witness consciousness or thinking of thought thinking of itself** e.g. like a fly on a wall thinking of itself on the wall thinking while thinking about what it was seeing in the room!!! Somewhat Koan like 'how did you lose your soul? Or something like that and where noemasin are the thoughts. That is in teaching and conventional education there is a view that the teacher is midwife, in Socratic terms *maieusis* – noospheric midwife. The midwife is one who helps delivers a mother's baby and a *doula* is one who holds the 'space' in which the midwife and mother deliver the mother's baby – a physiospheric midwife)<sup>xxiv</sup>.

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<sup>xxiv</sup> We now take an aside to the metaphysical status of things that are 'noetic' (*intelligible and incorporeal*) as distinct from being *perceptible and corporeal*. In **Plato's** later dialogues, and more systematically in Aristotle and later **Plotinus** AD250, nous is not only the highest activity of the human soul but also the divine and transcendent principle of cosmic order. Although Plato's special uses of *nous* left their mark on Aristotle, the latter arrived at systematic ideas concerning *nous* as the distinctive faculty of the human soul. In **Aristotle's** general model of the soul, psychic functions are realisations of bodily potentialities. **Anaxagoras** used nous to mean 'neg-entropic' principle of the universe as the overall controlling principle of the universe. Making *nous* quite separate from everything else, he characterised it as 'the finest and purest of all things, which has all knowledge about everything and the greatest power'. *Nous* causes the primordial mixture of other things to rotate and separate into distinct beings. **Source:** (Accessed 06-2010)  
<http://www.ask.com/bar?q=Nous+Noein&page=2&qsrc=2891&dm=all&ab=4&u=http%3A%2F%2Fwww.muslimphilosophy.com%2Fip%2Frep%2FA075&sg=WkjGWe%2FShH7IvthyxLDqONAwM5N9ET%2FP4FdL1IKN4%3D&tsp=1271645770172>

This latter ground up model is consonant with this eBook, while acknowledging my debt to the ancients I indicate I have only a small fraction of their nous. Thus I put this acknowledgement in a separate paragraph.

In this way the ‘T’eacher as *maieusis* facilitates the student to ‘**think in her first/own person’ that is as ‘I’** not as ‘teacher’ or as the ‘other’ or as per some author or ‘by the book’ (technical thinking) or as ‘what the teacher says’ but uniquely from within the unique personhood of the person who is the student and who must learn to ‘**dare to think’ or ‘dare to discern’ or *sapere aude*** as Kant put it and it became the battle cry of the Enlightenment now reduced to a back or bar or prison room whisper.

In short to ‘**think otherwise’** or perhaps more correctly to ‘**think Iwise/iWise’ as with *maieusis*** and ‘**do otherwise or Iwise/iWise’ as with *techne***. As with *Techne*, *Maieusis* is always mediated by a human and cannot exist separate from a human unlike machine, technique or technics. *Techne and Maieusis* are participatory embodied ideas and I argue part of Berman’s (1981) participatory consciousness. See Casey (2009:134-136).

In this ancient sense concepts such as *Erfahrung* and *Erlebnis* apply equally to *Techne* and *Maieusis*, and to physiospheric doing learning and noospheric thinking learning.

### **Artifice as ‘Tooled Knowledge’ or ‘Praktische - Werkzeug Erfahrung/Erlebnis/Bildung’**

This eBook maintains that there is such a thing as a ‘tooled knowledge-based economy’ consequently outputs and inputs should be expressible in terms of broadly understood ‘tooled knowledge’, while no homogenous unit of knowledge has yet been constructed although different types, domains and psychological sources of knowledge have been identified.

Technological change is defined as the impact of new knowledge – three types are identified: (1) codified and (2) tooled and (3) tacit. This eBook argues that in many regards (2) codifies concretely all three knowledge types. Three key domains may be identified where this taxonomy is relevant: the natural & engineering sciences, the humanities & social sciences and the Arts.

The production function assumes that capital, labour and natural resources – as well as output - can be interpreted as knowledge. Capital becomes knowledge - codified or tooled - imposed on matter – or what Boulding (1966) viz. Bronk (2009:27) called ‘frozen knowledge’ while **Hard-Tooled Knowledge (HTK)** is a form of frozen knowledge. While **Soft-Tooled Knowledge (STK)** is software inc. intelligent networks, systems and skills. Labour then becomes one expression of tacit or personal knowledge. **Tacit or Personal-Knowledge (TPK)** is broader of course than labour and includes social mores and other deeper psychological knowings.

Natural resources become raw matter and energy recognized as capable of being tooled by human knowledge generating what is called *praktische Erfahrung* (Ger) or **practical experience** or know how or knowledge obtained by doing or *techne* or *nous*. Ultimately this may be accompanied by *erlebnis* (Ger) extraordinarily rich and powerful idea that founded thought in the inexhaustible meaning of, or deep insight/inperience/*techne* through, experience as in lived through. So in this sense may I suggest an Artificers term *praktische erlebnis* (Ger) or **practical deep learning**. Output includes knowledge-for-knowledge-sake, i.e., knowledge as a final consumption good as well as knowledge for

utilitarian purpose, i.e., as an intermediate good. These are terms more common in say romantic hermeneutics for instance of Gadamer (1992).

In this way the Exemplar Project may be seen to be ‘**aletheia-ing**’ i.e. revealing the artificer, as with the sculptor, then maybe seen as a midwife or doula in this revealing. **Bildung** here indicates a broad holistic holonistically tooled education/learning/knowledge. And **Werkzeug** indicates testifying to the ‘aletheiaed’ techneque through the use of the work(Werk) tool (zeug).

Finally, it is argued that no matter the type, domain or source of knowledge, ultimately all knowledge is tacit or ‘personal knowledge’. This provides the foundation for a knowledge theory of value knowledge and its corollary, a knowledge theory of capital. This argument holds water until the singularity when technology becomes sentient/conscious say around 2030.

**So that from the perspective of this eBook the Artificer represents Tooled Knowledge** viz. Tooled even Technequed Knowledge both hard and soft.

### **Techne as apotheosis from retro to proactive ancestor worship**

Clearly techne played a key role in the past and to this extent it could be argued that somehow I have got lost in the ancestor worship of multi-millennia ago. In other words my interest in techne has become worship even veneration of long dead people and concepts. [see NB below]. My commitment has been trenchantly to explore how it is that we design our socio-educational systems to deny the link between and doing. This has led me in many directions some retroactive, some prototypal, some proactive, some mundane, some sublime, some instrumental and some substantive and so forth.

Techne does have a long history indeed one that of all bodily doings prior to the emergence of speech, those involving the hand are the most critical in directly accounting for our expanded cranium size. Words and numbers vanish as soon as they have been uttered but fingers can be kept constantly in sight. Tallis (2003:216).

In the spirit of this inquiry I argue that Techne is, in this context, nothing less than forecestors worship or proactive apotheosis. Because unless we rediscover such arenas as techne where thinking and doing are linked we shall become, and are becoming, sentient computers.

NB: Apotheosis, the act of raising a person who has died to the rank of a god. Historically, it was most important during the later Roman Empire. In an emperor's lifetime his genius was worshiped, but after he died he was often solemnly enrolled as one of the gods to be publicly adored. Apotheosis is closely related to ancestor worship.

**Defining Techne:** **Techne** is often translated as *craftsmanship, craft, art or a ‘way of making’ i.e. including design*. It is the rational method involved in practically producing, through ones hands with ones hand wisdom, an object or accomplishing a goal or objective. The means of this method is through craft even cr’art. Techne resembles episteme in the implication of knowledge of principles, although techne differs in that its intent is making or doing, as opposed to ‘disinterested understanding.’ The English aphorism, ‘gentlemen

don't work with their hands,' is said to have originated in ancient Greece in relation to their cynical view on the arts and manual labour the last of which was fit only for slaves. I suggest the distinction between *techne* and *technique* the former being the *modus operandi* for growing competence and capability in joined-up interdependent convivial self-care through *techne* rather than growing dependence on individualised market based productivity focused manufacturing and consumption based on separated out products and skill competencies through *technique*. Here practice informs theory not vice versa as in the conventional sense.

### Broader issues implicit in *Techne*

**Techne** is often translated as *craftsmanship*, *craft*, or *art* as an expression of *hand knowledge* in each instance this distinguishes it from *Technique* which relates more directly with technical. It is the rational method involved in producing an object or accomplishing a goal or objective. The means of this method is through art. *Techne* resembles *episteme* in the implication of knowledge of principles, although *techne* differs in that its intent is making or doing, as opposed to 'disinterested understanding', *technique* and its operation then through the machine and *Techneque* to the artisan and her use of tools to shape her masterpiece and bring it into being (French influence). Thus *techne* is the ability to 'craft gaps' and bring things into being.

*Techne* as '3H chiro-yoga' and even sacred activism: As such *techne* relates to *phronesis* (wise action) and *prohairesis* (choosing ahead wisely) together possibly 'sacred activism' even 'hand yoga' even 'chiroyoga' or '3Hyoga' (Head Heart Hand) possibly even seeing sacred activism as 'the passion of compassion and love in action in every level in every realm to change the world for the better'.

***Prometheus steals Fire AND Techne from heaven:*** This to Ellul (1964:325) is an uncovering, even fabrication, of our own essence (note links to Heidegger's *aletheia*/revealing) and thus is involved with the constitution of ethical beings and 'constituting' the lived life. The two may be seen as *Technique* relating to existing knowledge on how to operate a machine (ex post focus- related to Epimetheus – knowledge – P's brother god) and *Techneque* relates to creating something to master the gap (ex ante focus – related to Prometheus in ancient Greek mythology). Both P&E made clay figures and life was breathed into them by the Goddess Athena and for E the figures became animals and P they became human and and after E had given the animals positive traits such as flying, swimming etc he had none left to give us mere mortals. So mortals were destined to remain weak hairless, slow creatures. Due to an earlier dispute Zeus had denied humans the secret of fire, however Prometheus, who was 'at a loss to provide and positive means of salvation for man, stole from Hephaestus and Athena the gifts of **fire AND techne** (skill in the arts) and bestowed it on man'. So, according to ancient Greek mythology we got fire AND *techne*. Twin gifts and they have been at war with one another ever since.

Boellstorff (2008:55). The difference is that between bringing forth something new and operating what has already been brought forth through intentional individual adaption to the life circumstances cp. instrumental adherence to collective rules/behaviours (for the

operation of the machine). *Techne* in this sense involves agency, intentionality, skill and prudence.

***Techne confirms humans as part of Gaia:*** Through *techne* Gaia becomes our epitome through our handiworks whereas through *techni*, man has become the epitome of his handiworks which now glorify us. That is *Techni*, then, in a post modern sense means nothing less than the ‘bootstrapping our ability to craft ourselves to reshape Gaia into our likeness’ – in short man becomes more than superman we become even more than Prometheus – we become the idol of our own handiworks i.e. as god. Illich (1970:14).

We become our own fabricators *homo faber* of Frankenstein me, again whereas with *Techne*, in a post modern sense means nothing less than ‘bootstrapping our ability to craft ourselves as part of Gaia in her likeness, again through archaic geneti-memetic evolution the *techne*-hand-made man as part of ‘N’ature whereas through Modernity’s memeti-genetic evolution the *techni*-head-made man is in control of his and biological ‘n’ature.

***Techne can obviate epistem:*** **Techne can also obviate epistem** i.e. knowledge by working around what is known to generate something known. Boellstorff (2008).

***Culture can be defined two ways fire and skill.*** Further **culture can be defined two ways:** fire/epistemically, as knowledge, history and belief or *techne*/technically as capabilities, intentionalities and habits. This illustrates two distinct yet interinvolved paths to understanding the world around us and our place therein. Thus *techne* and *techni* generate a vastly different dynamic to our telos which we as incomplete unfinished animals seek Boellstorff (2008:66) to complete through culture.

***Techne and post organic life forms:*** Today we see the emergence of post organic and post biological forms of life – Web 2, avatars etc. Many authors such as Boellstorff (2008:67), Wildman (2000a, b) argue that it is crucial to understand this *techne* | *techni* dynamics in order to look to the telos in this emergent cultural phenomena.

### ***Techne and Laissez Faire***

As argued above there is a high, though not exclusive, level of fit between the successful manifestation of *techne* through the Artificer and the Laissez Faire organisation of the social context in which the Artificer/Bush Mechanic locates.

### ***Techne and Artifice***

Here *Techne* expresses a strong *economy in the (re)use of resources locally* in the undertaking of Artifice within the Exemplar Project. Economy is used here in the strong sense of prudential management in the sense of Oikonomia not necessarily efficiency. *Techne* and Artificer are symbiotically related as in different sides of a coin. NB: Technique and Technique are substantially different as detailed elsewhere in this and other pieces in the Bush Mechanic series.

### ***Techne and conventional education***

Conventional Education (CE) turns out *reactive competitive dependent consumers* while medicine keeps us alive to consume in an engineered environment we have come to require while bureaucracy exercises social control and surveillance over us as we do our largely

meaningless unconscientised work. Illich (1973:48). Further CE has extended a radical monopoly on learning by redefining it as education. Thus as long as we accepted pedagogy's definition of 'what is reality' and 'what is education' and 'what is a learning credential' we allowed those of us who learnt outside these parameters to be stamped as 'uneducated'. The power relationship in teaching is that embedded in consuming – a uncontested power over and power to determine what to choose from and thus ultimately largely a power to control what one does.

Artificer learning through techne on the other hand seeks to develop *proactive competitive independent innovative citizens*. As such techne takes a very different tack in seeking to provide: (1) a convivial environment, (2) avenues for authentic activity within (3) conscientised learning and (4) redistribution of educational power. Illich (1973:61).

### *Technique and Technique*

It can be argued that the present social organisation of our tools (i.e. technique) leads to the above type of consumption whereas a convivial organisation of our tools (viz. techné) could lead to a sustainable society that does not depend on economic growth for its *raison d'être*. In this sense Technique is about the separation of man from, and the gaining of mastery over, Her/Nature – as the biblical remit, even imperative, is oft interpreted as. And Techné as maintaining the link as the human within nature within Gaia so that through technéology, unlike technology, nature is not counterpointed but to an extent conflated.

Technique then is about separation, distancing and control over nature so that society and nature are antipodes. We fear the savage the beast the Wild-man the 'Other', the indigenous who is assimilated even partially and proudly into Nature. Techné on the other hand is about braiding, blending and conflating and synergistic relation to nature within which we as humans exist. Here in modernist and Industrialist social terms (from the Industrial Revolution) Nature/the Environment is seen in this *adversarial dualistic 'either-or', polarised* modality which then prejudices us to preconceive our relations there with in terms of the above 'power over' approach not the technical 'power with' approach advocated herein. Tallis (2003:256).

Manipulation by tools is coercive however in the former it is to gain mastery and competitive success in the latter it is aimed at being revelatory, symbiotic and co-operative. I argue that the former also indicates a non-participatory approach to consciousness(broadly understood)/ontology and a valorisation of contemplative detachment el ar Plato and Aristotle. In this latter context engaged hand driven occupations are suitable ultimately only for slaves whether they be human low wage third world workers or worker machines/robots.

Techne then as developed and explicated retroactively and proactively in this series seeks to stand as a counter point to an ontology where in Nature and human become separated as the now isolated human seeks release or realisation in the higher consciousness of the etherealised noosphere from the surrounding world of objectively separated objects.

### *Go Slow – Zen and the art of Techne – 10,000 hours then hello Gaia*

Here we have the ultimate dilemma in that techne takes time indeed as I argue here up to 10,000 hours to develop in most individual cases. And as in the Zen wisdom accounts whereby an aspirant asks the master to train him in sword techne and the master sends him to do gardening than unpredictably sneaks up and wacks him with a bamboo cane. The aspirant at first gets angry then hurt then resolves to just do gardening and accept the pain but then one day (10,000 hours later, Gladwell (2008:Ch2)) he automatically (without thinking) turns and grabs the cane before it hits him and looks the master in the eye, whereupon the master says you no longer need to use the sword.

In our frenetic culture today we just don't have this sort of time we want wifi plug and play. The idea of a parallel slow techne culture/network/community is simply impossible to imagine. Yet as explicated in this eBook for techne to work we need such a system operating at about 1/3<sup>rd</sup> to 1/4<sup>er</sup> current wage rates (as in Australian dollars mid 2009 prices). This allows time for innovation, custom construction and citizenship development.

Much has been written about 'slow food', 'slow towns' etc. I suggest that 'slow techne' is simply an nest, or a holon, in which these exist. They are the 'slow' that allows the other 'slows' to go – so to speak. In this very real sense 'Soulful' Techne is an endangered species and to bring it back from the brink will take a monumental effort indeed.

Furthermore Zen can, I argue, aid us in our Artificers Quest and thus its inclusion in the titles of this eBook series (see also Appendix F in eBook1). Zen represents the merging of dualities, non attachment to ego or product viz. exemplar project etc., ego-displacement, the abrupt perception of absurdities and their depth through Koans (for me especially Ultvansi Koans that point to the divine from mundane absurdities), surprise and astonishment, the reflexive moment and yes the use of humour such as: paradox, irony, self deprecation and distancing etc. All in all this results in the deployment of a radical scepticism not a paralysing one but rather an empowering practical one that can get the job done so to speak yet not confuse 'what is grasped at (the job/product) with what grasps at it (the hand/the mysterium)' that is for instance 'the finger pointing at the moon', the sublime the beginning of human unknowing.

**NB:** As an aside in the ancient Orient a millennium ago new disciples regularly would go to their Guru's house at the age of five and live there till 25 i.e. 20years – easily incorporating and exceeding the 10,000hr rule. Rama (2000:92). This practice can be seen reflected in the Middle Ages practice of Apprenticeship where the apprentice would go and live in the trade masters house and be treated as one of his sons. Apprenticeships here were 7-10years readily accounting for the 10,000hour rule.

### *Go Fast – Technique ahead - goodbye Virtuality, Techno-rapture and Hyper Zen*

Here in today's 'speeded up' world we will use our techniques to pass through the singularity<sup>xxv</sup> (a sort of techno-rapture) and abandon our flesh-and-blood selves and upload or digitised psyches into computers and thence virtual reality. We will then all dwell happily ever after in noospheric cyberspace where, to paraphrase Woody Allen 'we will never need to look for another parking space again'.

Tragically this also is the omega for many spiritual paths, esp. new age spiritualities, to become disembodied etherialised a theosphere beyond a noosphere to speak. This is the risk of the add on approach to spirituality or out there whereby ones spirituality is largely unconnected to the rest of one's beliefs and if it's necessary it is just added on to ones consumerist world – I call this Hyper Zen.

### *A new take on the Exemplar writ large as World Soul accessed via. Teche-rapture*

Here we are defining a new standard about what the exemplar is or is not. It is disputable nevertheless that soul is out there, in the world, and in here in us as individuals, so that the Exemplar Project can reach across the divide and then transcend it. Again we have the tension between a zeitgeist of profit maximisation and technique and slow Oikonomia and techne.

This is the magnum opus, which is no longer taking place only in the individual experience. Not that our individuation is not a work; it is, but small scale, more like an opus parvum (means a 'little work' as opposed to magnus opus 'great work'). Nevertheless this is not uniquely personal, not individual or even collective — if we take collective to mean a collection of individuals. It has a dynamism of its own which has nothing to do with human beings. Our historical psychology up till now has been about human beings, but not about the soul itself.

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<sup>xxv</sup> The singularity is variously taken to mean when: (1) computer intelligence equals human intelligence (cumulative) around 2040 and/or (2) sentience arises in technology (post 2050). I tend to prefer the former, although one can posit that simply modifying plants generically is creating a form of life. Critics argue that such a transition will be at least very difficult as our consciousness and sense of self have evolved within, and may well not work in any medium other than, a social, crafty (read techney) emotional, sex-obsessed, flesh-and-blood primate.....(I will leave the final decision to you).

## Chapter 9: Is there no such thing as ‘an’ individual author/Exemplar Project yet nothing is outside ‘T’he text – or is it??

Let’s say (to give a humble example from literary studies) that there is a dispute about the authorship of a poem. A party to the dispute might perform comparative analyses of the writings of rival candidates, examine letters and personal libraries, research the records of printers and publishers, look at the history of reception, etc. Everyone who engages in the dispute will do his or her work in relation to well-established notions of what counts as evidence for authorship and accepted criteria for determining whether or not the evidence marshalled is persuasive.

But suppose, you think (in the manner of Roland Barthes and Michel Foucault) that the idea of the individual author is a myth that emerges alongside the valorisation of property and property rights so central to Enlightenment thought? Suppose you believe that the so-called author is not the source of the words to which he signs his name, but is instead merely a site transversed by meanings neither he nor any other so-called ‘individual’ originates? (‘Writing,’ says Barthes, ‘is the destruction of every voice, of every point of origin.’).

An educational actionista’s response is to say that all this is a storm in a teacup and it is a teacup of text with no reference to out-coming projects from these permutations of the cognoscenti that are of direct and dirty fingernails type aid to our general lot as humanity. The above two paragraphs represent the typical narcissistic self obsession of the academic with the noosphere and if you do work using technical skills, or in maintenance and service areas, I think you are broadly considered as ‘the drones’ of society; stupid and contributing something of ‘less value’ you are a mere ‘operative’. Further in the above two paras author is assumed to be of text – this is how much the cognoscenti have totalised and appropriated the valorisation process for their own ends.

So is it true that ‘all the world’s a text’? Clearly in this eBook I strongly affirm in the negative. In effect I argue a counterpoint, in deep solidarity with our chiro origins as a species, that ‘all the world’s a bench’. The two are related though as for a ‘text’ one needs food prepared on a bench to live to write the text AND for a ‘bench’ one needs text on plans to construct the bench in the first place. Maybe Shakespeak would say ‘all the world’s a stage!’ which combines both a bench folks stand on while speaking text with full bellies!!

**NB:** text here is used in the broader post-structuralist sense of ‘T’ext and includes the textualisation of the world inc. texts visual representation the screen as well as the ‘text’ of

academy i.e. the word, of the media i.e. the screen, of the analogue and digital worlds i.e. continuously variable analogue signals and 0's and 1's, and of the market i.e. the dollar.

### **The Project, Art, and Web as challenges to the 'authorised' text**

Today Pedagogy and Text are basically synonyms, especially in tertiary education. **Today text remains the common denominator par excellence of our panopticon command and control pedagogical systems we operate as detention centres called schools.** And this curriculum is delivered by the 'sage on stage' seldom by the 'guide on the side' as with mentored Kids and Adults Learning.

Alternative forms of knowledge production are largely silenced by this 'legacy demarker' whose imperium is demarked by the so called 'text book' as the 'authorised text'. To my mind the academe resists these other forms and expressions of knowledge as they reduce the power of the cognoscenti to accredit masses through the doorway of text manifest (written papers) knowledge of these 'authorised texts'. When developing curriculum material as an academic in the latter part of the 1990's I would read about 1,000,000 words in research write about 500,000 in curriculum material of three modules, then co-develop it, along with its respective books of readings, with an instructional designer and send this out to my students around Australia, none of which I would meet, they would read it and write 10,000 words and send this back to me in three assignment which I would then write say 100 words on each and return this to the respective student. If the student did this 21 times they got a piece of paper with 32 words on it called a degree in Social Science. That ladies and gentlemen is the sum total of 'edumacation' in the early 21<sup>st</sup> century that is – today!!

So we see in the emergent post modernity the 'locus of pedagogical authenticity' transition from 'authorised text' accessed through accredited hierarchical curriculum 'T'ought in authorised classrooms by authorised teachers to 'unauthorised screen' accessed horizontally on a peer to peer basis and stuff the authorities – that is until the web is regulated by the coropropanation state into the 'authorised' web.

### **A post-structuralist's retort: 'There is nothing outside the text'**

*There is nothing outside the text* - Derrida -- depends on meaning appropriated for 'text' and consequent issues of hermeneutics. The text can be the world, refracted through our sensorium. [The term **sensorium** (plural: sensoria) refers to the sum of an organism's [perception](#), the 'seat of [sensation](#) 'where it experiences and interprets the environments within which it lives – as such this is somewhat of an empirical aside at the 'centre of our being' concept it is by definition broader than our brain or even our mind] .

It was also of course a deliberate attempt to shock though not as joke and to attack problems inherent in binary formulations -- us/them, black/white -- attributed to western thought/philosophy. (Cf. *Zen and the art of...*) Also the way language shapes consciousness in the sense of perception and interpretation -- *vide* 'the limits of my language are the limits

of my world' (Wittgenstein) -- later added, 'I did not say the world, I said my world'... and the great but uncognised unknown outside socioculturally situated 'text'.

Here a post-structuralist can say 'my action is my text' and 'my text is my action' – the latter being more frequent with academics.

### *Where Doxa remains largely outside the realm of emergent contending ideas*

Hence slavery was not slavery, patriarchy was natural, fossils were created in situ, caste was ordained... and so forth until our wor(l)ds change to make them into what they are today. Our language use/culture reveals and conceals. (This is an anthropological take too.) Slavery was seen to unnatural/whatever as the text about slavery changed. Patriarchy was seen to be oppressive as feminist discourse entered the field of possibilities. Cf. Bourdieu's anthropological work in relation to his 'field of possibilities', where orthodox and heterodox ideas may well compete yet share the same unquestioned fundamental assumptions, while outside the field the vast unknown/tacit 'doxa' remains, new elements need to be introduced from the outside as they seldom if ever arise from within<sup>xxvi</sup>.

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<sup>xxvi</sup> A famous quote from Bourdieu – *Enlightenment is on the side of those who turn their spotlight on our blinkers.*

Some key Bourdieuan concepts:

**Field** - Bourdieu shared [Weber's](#) view that society cannot be analysed simply in terms of economic classes and ideologies. Much of his work concerns the independent role of educational and cultural factors. Instead of analysing societies in terms of classes, Bourdieu uses the concept of *field*: a social arena in which people manoeuvre and struggle in pursuit of desirable resources.

**Habitus** - Bourdieu re-elaborated the concept of habitus from Marcel Mauss--although it is also present in the works of Aristotle, Norbert Elias, Max Weber, and Edmund Husserl--and used it, in a more or less systematic way, in an attempt to resolve a prominent [antinomy](#) of the human sciences: [objectivism](#) and [subjectivism](#). Habitus can be defined as a system of [dispositions](#) (lasting, acquired schemes of perception, thought and action). The individual agent develops these dispositions in response to the objective conditions it encounters. In this way Bourdieu theorizes the inculcation of objective [social structures](#) into the subjective, mental experience of agents. For the objective social field places requirements on its participants for membership, so to speak, within the field. Having thereby absorbed objective social structure into a personal set of cognitive and somatic dispositions, and the subjective structures of action of the agent then being commensurate with the objective structures and extant exigencies of the social field, a [doxic](#) relationship emerges.

**Habitus and Doxa** - [Doxa](#) are the learned, fundamental, deep-founded, unconscious beliefs, and values, taken as self-evident universals, that inform an agent's actions and thoughts within a particular field. Doxa tends to favor the particular social arrangement of the field, thus privileging the dominant and taking their position of dominance as self-evident and universally favourable. Therefore, the categories of understanding and perception that constitute a habitus, being congruous with the objective organization of the field, tend to reproduce the very structures of the field.

Bourdieu thus sees [habitus](#) as the key to [social reproduction](#) because it is central to generating and regulating the practices that make up social life. Individuals learn to want what conditions make possible for them, and not to aspire to what is not available to them. The conditions in which the individual lives generate dispositions compatible with these conditions (including tastes in art, literature, food, and music), and in a sense pre-adapted to their demands. The most improbable practices are therefore excluded, as unthinkable, by a kind of immediate submission to order that inclines agents to make a virtue of necessity, that is, to refuse what is categorically denied and to will the inevitable.

**Reconciling the Objective (Field) and the Subjective (Habitus)** - As mentioned above, Bourdieu utilized the methodological and theoretical concepts of habitus and field in order to make an [epistemological break](#) with the prominent objective-subjective antinomy of the social sciences. He wanted to effectively unite social [phenomenology](#) and [structuralism](#). Habitus and field are proposed to do so for they can only exist in relation to

Similarly 'death of the author' is an attempt to shock us to recognition of inter-textuality and time/space locatedness and situatedness. (Rather different to Foucault's uncomfortable death from AIDS -- there was text for death but no text for AIDS then). Further irony of post-structuralist texts around 'insanity' constructed to exonerate the great structuralist, Althusser, from strangling his wife, and hence preserve him from the guillotine.) Your point on the binary between intellectuals and workers is apropos, Gramsci (as metatext?) knew/'knows'. (Hence returns us to Derrida's 'insight' above...).

In Derrida's statement 'that nothing is outside text' we see that's it the noosphere wins it redefines reality to be within it – like saying nothing such as nature is outside money – this is what the financial wizards of wall st sought to do and it stuffed us all, and academics say my writing is my action – man we really have left planet earth at this juncture.

### *How to change this field of possibilities?*

The crucial issue is how to change this field of possibilities? Put another way, how do paradigm shifts occur? In this context and in light of the key thesis of this series above all of course is praxeology and thus praxis inc. the theory/practice duality. Plus of course the fundamental centrality of ontology for consequent epistemology and thence for consequent practice and back again. That is how 'being' is constituted sets the parameters for knowing and hence for doing. And vice versa -- a cycling loop captured in the Exemplar Project so that through the project one can move between praxis to epistem to ontology.

### *Structuralism, Constructivism and Post Structuralism in passing*

**Structuralism and Post Structuralism** - Any of various theories or methods of analysis, including deconstruction and some psychoanalytic theories, that deny the validity of structuralism's method of binary opposition and maintain that meanings and intellectual categories are shifting and unstable. Further post-structuralism is a school of thought that emerged partly from within French structuralism in the 1960s, **reacting against structuralist pretensions to scientific objectivity**, comprehensiveness and its necessary

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each other. Although a field is constituted by the various social agents participating in it (and thus their habitus), a habitus, in effect, represents the transposition of objective structures of the field into the subjective structures of action and thought of the agent.

The relationship between habitus and field is a two-way relationship. The field exists only insofar as social agents possess the dispositions and set of perceptual schemata that are necessary to constitute that field and imbue it with meaning. Concomitantly, by participating in the field agents incorporate into their habitus the proper know-how that will allow them to constitute the field. Habitus manifests the structures of the field, and the field mediates between habitus and practice.

Bourdieu attempts to use the concepts of habitus and field to remove the division between the subjective and the objective, whether or not he successfully does so is open to debate. Bourdieu asserts that any research must be composed of two 'minutes.' The first an objective stage of research--where one looks at the relations of the social space and the structures of the field. The second stage must be a subjective analysis of social agents' dispositions to act and their categories of perception and understanding that result from their inhabiting the field. Proper research, he says, cannot do without these two together.

Source: [http://en.wikipedia.org/wiki/Pierre\\_Bourdieu#Bibliography](http://en.wikipedia.org/wiki/Pierre_Bourdieu#Bibliography)

prerequisite binary oppositions - the principle of contrast between two mutually exclusive terms - for instance in presence | absence, thinking | doing, on | off, up | down, left | right, guilty | innocent, subject | object, literal | interpret etc. My point is that it is really only in the intensely noospheric ambience of Universities that such *either or* dichotomies can be maintained once one seeks to undertake action in the world *either and* becomes an imperative.

Deconstruction then in this context is the ‘event’ or ‘moment’ at which a binary opposition is thought to contradict itself, and undermine its own authority. Here opposites attract and blend without excluding the middle /penumbra where they overlap where A is and is not A and B is and is not B a redress to Aristotle’s theory of the excluded middle. Here the Bush Mechanic becomes an example of what maybe called ‘critical reflexive praxis or intentional praxeology’, el ar Bourdieu (1998) who attempted to get rid of the strict distinction between subject and object.

**Constructivism** can be charged with obscuring the politics involved in representing reality and thus somewhat uncritically accepting external ‘reality’ which is then mediated scientifically with measurements and technique and tools etc to produce an exemplar project. The politics embedded in this reality are not immediately evident. Constructivism acknowledges 'the existence of a phenomenal world, external to thought' Guzzini (2000). This eBook is grounded on the Volk concept of Lifeworld (German: *Lebenswelt*), which may be conceived as a universe of what is self-evident or given as in to an extent external to the observer, a world that subjects may experience together as in Volk.

Further constructivism rejects the ‘slash-and-burn’ extremism of some post-modern thinkers who leave nothing behind them, nowhere to stand, nothing even for themselves to say they ‘give nothing back’. Constructivism then tries to make sense of social relations in general in order to get beyond the pointless vacuous posturing that passes for academic, intellectual debate in a discipline that cannot even defend a claim that it is ‘apraxical’ in that it in no way reifies praxis, which, I suggest, is the central tenet of this eBook. (Ashley (1989:78-82). In this way constructivism joins with post-structuralism in taking a view of the crisis of modernity that all prizes difference over identity and fragmentation over the illusion and perils of unity, as well as valorising doing along with thinking in a phenomenal and to an extent ‘external’ world.

Although not a philosopher and while acknowledging that **this is not a philosophical treatise** I do acknowledge with Constructivism is a constructive response to the challenge of the ‘post’ movement. This eBook is not a dissertation on constructivism or post structuralism or any other essentially noospheric theory rather it seeks to build from the ground up a pedagogy that can legitimately sit alongside conventional and other alternative pedagogies. **On this basis it takes from both structuralism and post structuralism and locates between them, however as explicated in this eBook I suggest the eBook’s**

**philosophical axis mundi locates closer to post-structuralism than structuralism. Nevertheless and consequently it therefore attracts the critiques of both.**

**Readers note:** there is some argument that praxeology is the study of those aspects of human action that can be grasped a priori, however in this piece may I request the reader to apply the term to *a priori* and *a posteriori* – both of which are present in incremental organic and embodied design process of the Artificer/Bush mechanic. So here conscious intent is included in the former and tacit knowledge and revealing unconscious patterns in the latter). Clearly conceptions such as agency and self-efficacy are included in this rubric in that it is the view one's actions can have an effect on the environment. Further such self-efficacy of the Artificer is the basis of his or her 'social action's which in its Weberian sense an action is 'social' if the acting individual takes account of the behaviour of, and impact on, others and is thereby oriented in its course'. Webber (1991/1922).

The Bush Mechanic challenges the structuralist binary separation of thinking and doing. Also challenged is the totalisation of Western logocentricism (the logic of meaning of text is to be located in the dictionary meaning of the word), textualisation (valorisation of text compared to constructivist actions and projects such as polyolith's (Social Anthropological terms that mean: polyolith - human constructions that like the pyramids (lithic stone structures in particular) will fall to pieces if inverted and polypod's – human constructions that wont e.g. a car) and I would include noocentricism (it's not man but mind; indeed, with man as host to mind man becomes the chalice of universal 'g'od consciousness; to which, man as mind becomes an analogical self-transcending referent to God; this Western epistemic process leads to the valorisation of mind over matter viz. thinking over doing). All this is, to my mind, quite Platonic and reminiscent of Plato's ultimate destination for the philosopher which was to come to rest on heavens rim listening to the god's converse (though not participating in the conversation).

### *Is then an exemplar project simply text in another representation?*

For me in this series I argue strongly that the Exemplar Project is in effect an example of post structuralist structuralism. It is post textual and more correctly trans-textual in that it is the recombinant old seen again as now beyond yet including text.

**Post Post Post Modern Culture:** It is not my intention, nor do I have the capability to debate the issue at length esp. in deep post-modern terms, terminology and authors. Post modernism is a crucial, but yet insufficient, step in addressing action in our world. I posit that text and action are like discrete systolic and diastolic moments each overlapping and yet discrete. I prefer neither rather to continue to all them to be discrete as it were two moments in being. For instance I could seek to establish a **post post post modernism** wherein praxis is valorised such that text becomes action rather than vice versa.

**Modernity** – our modern day status quo Zeitgeist materialist rationalist western hegemonic Tayloristic reality, **post modernity** – an essentially noospheric critique of modernity in a way that problematises all so-called 'grand narratives', **post post modernity** – a world view that recombines modernity and post modernity in a sort of retro back to the future approach – a reassertion of the old while still validating the critiques from the new, and **Post Post Post Modernity (PPPM)** as above.

**Transmodernism and Integral Culture:** Transmodernism is generally taken to mean an eclectic agglomeration of values including: (1) Ecological Sustainability, (2) Globalism, (3) Feminism and ‘Otherism’, (4) Altruism, (5) Social Justice. Although in some ways the two are compatible yet pppm strongly advocates that efficacy and insight can be legitimised by the ‘illustrated project’ and thus **pppm is trans-textual** and not only anchored in critical theory. The emphasis on the value of new technology to overcome natural limitations lends itself **a diminution or outright repudiation of the past, since yesterday's knowledge is always less than today's**. **Transmodernism (TM)** is also expressed as **Integral Culture and** represents public values which find their expression **not** in intuition, common sense or tradition or the illustrated project (the Artificers path) but rather in the theoretical effort to create conceptual paradigms that will help increase social and individual wellbeing (the transmodern path). **These may be considered as major differences between PPPM and TM.**

**Hypermodernity (HM) and Supermodernity (SM):** Transmodernism like PPPM’ism is a response to what may be seen as ‘**hypermodernity**’ or ‘**supermodernity**’ i.e. more of the same. Characteristics of **supermodernity** include a deep faith in humanity's ability to understand, control, and manipulate every aspect of human experience. This typically is manifested in a forward-looking ever-increasing commitment to science and knowledge, particularly with regard to the convergence of globalism, technology and biology.

**Post Post Post Modernity (PPM)and Transwesternism (TW):** This tome is undeniably part of Western canon and thus imbibes deeply of modernity. Even ‘worse’ its author, a white male, is western, middle class, middle aged and educated in the west. These eBook’s nonetheless still seek to transcend these limitations and to nurture on their strengths through the focus on the Bricoleur – a transwestern volk phenomenon that, I submit, emerges in all cultures. As such a critic can say I review such a transwestern phenomenon in a very (possibly too) western manner, accepted though on balance it is for the reader to decide. One thing I have diligently sought to avoid a Neocon message embedded in a Bricoleur Trojan horse.

I fear that it may be possible to achieve the position of PPPM however for me it is intensely challenging to imagine post western volk phenomena such as the Bricoleur emerging as a valid expression or even focus of pedagogy.

In these regards I have preferred to **accrete the existing concept of post modern** and to introject this with the concept of **transwestern** rather than switch to the alternative terms ‘**transmodern**’ or ‘**post western**’ which has various elements beyond the meaning of post post post modern as used herein. So in summary I situate this eBook series as PPPM in the TW context.

### *Introducing the Existential EP ~ DNA – Doing Necessary Action*

Unarguably there is a strong sense of instrumentality in the EP however I would argue recombinant instrumentality within a form of EP DNA a form of Doing Necessary Action that is not necessarily textual. **Instrumentality implies an extraordinary intensity of purposefulness** within society and those undertaking an EP within that society. This suggests a DNA type helix relationship between thinking and doing and instrumentality (means) and substantativeness (ends) a deontology.

Possibly one could maintain that the EP and text share the same semiotic heritage and semiotics is a form of text so that in this sense EP is still captured within Derrida's imperative above. Yet still I aver somewhat that DNA in the above sense starts and finishes apart from text and represents something that, like a painting, cannot be captured fully within text yet uses text and measurements and instructions and plans for its development.

### *Approaching the Bush Mechanic's Logic Base*

For Bourdieu individual skills are aggregated into what he calls infra-conscious complicity between the agents and the social world which he calls 'habitus' which ultimately can be as a 'feel for the game' a game and the praxis of following the rules of the game can lead to what he calls **'having the game under your skin'** 80 and thence also to a concrete expression of the relationship to the future which may be called a 'project'. In short pretension the relationship through the habitus project to a future that is not future but a future that almost present indeed becoming present, thus linking with Heidegger's aletheia. This in Bush Mechanics terms is, to my mind, techne, and the project the 'exemplar project'.

Bourdieu's scientific approach to Practical Reason is based on the insight that the deepest logic viz. the 'logic base' of the social world can only be grasped if one plunges into the particularity of an empirical grounded reality historically situated (located and dated), as indeed one is himself, with the object of constructing it as a 'a special case illustrative even exemplar of what is possible'. Bourdieu (1998:2).

Applying this theoretical approach for instance means that in seeking to understand the logic base of the Bush Mechanic I plunge into a particular application of the Bush Mechanics empirical reality viz. I build a boat with a bushy, in Australia as a member of the middle class, from 2003-2008, whereby the boat becomes an exemplar (not perfect) of what is possible in this context. And my grounded research based on this process generated the four principles of the Artificer/Bush Mechanic logic base of (1) exemplar project – walk your talk, (2) social holon – help others, (3) global problematique – save the earth and, (4) action learning – talk your walk.

### *From Logic Base to Morphogenetic Field*

This logic base can then be seen as the logic of the field from which the logic base arises or on which it stands – this field may be called the habitus field after Bourdieu (1998) or

morphogenetic field after Sheldrake (1994) or the DemiUrgic Field after Wildman (), Wildman and Miller (2006).

If the future of humanity is to be found in its physiospheric praxis rather than its noospheric cognition then an epistemology that differs in its logic base is necessary and I posit one that that draws directly from a grounded morphogenetic field that is a praxeological one such as the Artificer's logic base. It has been suggested that morphogenetic fields work by imposing patterns on otherwise random or indeterminate patterns of activity.

Morphogenetic fields are not fixed forever, they evolve. The fields of Afghan hounds and, poodles or *homo consumerus*, and *homo artificer*, have become separated from each other and the former from our ancient fields those of their common ancestors, wolves. I would argue that the homo consumerus has separated from the ancient or archaic artificer one more so and the present artificer field continues, to a certain extent the direct link with the archaic. How are these fields inherited? Sheldrake proposes that that they are transmitted from past members of the species through a kind of non-local resonance, called morphic resonance. [see also [http://www.sheldrake.org/papers/Morphic/morphic\\_intro.html](http://www.sheldrake.org/papers/Morphic/morphic_intro.html)]. This concept extends the idea of our mind not being a skin delineated phenomena that is we as humans are not limited by our skins. Mobile phones and magnets etc have fields and thus it may be possible that our minds may be seen as a node in a broader field.

The fields organising the activity of the nervous system are likewise inherited through morphic resonance, conveying a collective, instinctive memory. Each individual both draws upon and contributes to the collective memory of the species. This means that new patterns of behaviour can spread more rapidly than would otherwise be possible. For example, if rats of a particular breed, or Bush Mechanics for that matter, learn a new trick in Harvard, then rats of that breed should be able to learn the same trick faster all over the world, say in Edinburgh and Melbourne.

So I posit that (1) logic base, (2) morphogenetic field, (3) non material memory, (4) the extended mind, (5) collective unconscious, (6) habitus and possibly (7) meme and conceivably the (8) Demiurgic Manifesting Field are significantly related. All these have the idea of (1) non materiality, (2) multi-causality, (3) non-skin limited phenomena, (4) distributed consciousness and (5) holonic network/field.

### ***From Logic Base to Local Theory***

This then for Bourdieu is an instance of 'local theory' in contradistinction to 'grand theory' that is noted for its lack of reference to any empirical reality. In this sense the Exemplar Project is a hermeneutical expression of the particular Zeitgeist.

### **Logic Base, Worldmaking and epistemology**

This is not to allege irrationality, as certain pathologising stereotypes may suggest, rather to consider the Bush Mechanic as a set of lived practices based on this logic base, which may be more accurately considered within 'practical logics' rather than contained within models of 'interpretive community' strictly understood as the 'scientific gaze'. This gaze may in turn, be read as the projections of 'the epistemocentricity of scholastic reason': 'Using his research categories the research introjects his theoretical thinking into the heads of acting

agents, the researcher presents the world as he thinks it – and thus introjects or puts ‘himself inside the machine’ i.e. inside the system within which the observed agents are operating thus interpreting the agents actions and intentions as if from the perspective of the introjector often on an ‘as if’ basis that is ‘as if’ the world as it presented itself to those who have the time and inclination to measure it thus. These observations then do not come from within the system or from its actors but from within the epistemocentric system introjected into the host system. In short they come from the scholar inside this machine.

The scholar or in Bourdieu’s terms ‘skholer’ does ‘have the leisure (or the desire) to withdraw from it in order to think it’. Bourdieu (1998:130). The ‘interpretive’ approach to the Bush Mechanic generalises on the basis of the academic’s/scholar’s social location and skills, presenting the ‘observed’ audience as a set of hermeneutic actors such that these observed practices and rationales reflect the disposition of the academic as interpreter from within the observed system. To clarify this point, Bourdieu offers the example of Clifford Geertz’s work on the Balinese cockfight as an instance of academic projection, noting that ‘in his ‘thick description’ of a cock-fight, Geertz ‘generously’ credits the Balinese with a hermeneutic and aesthetic gaze which is none other than his own’. See also Geertz (2000). This then for Bourdieu (1998:137) is the power of the ‘academic projection’ or scholar in the machine’ for what he calls ‘worldmaking’, consequently an ‘artificer in the machine’ run by ‘practical reason’ i.e. a particular epistemology would generate a very different world.

Bourdieu (1998:131) continues that in undertaking ethnographic studies on matrimonial practices of the Kabylia (a mountain Berber people covering several provinces of Algeria) he was led to think that such practices were led by strategies rather than rules by interpretation rather than dictation by heuristics rather than algorithms.

### **The ‘Ghost in the Exemplar Machine’**

In order to at least acknowledge and hopefully address, to the extent possible in terms of the research modality and my limited capabilities, in the Bush Mechanic grounded research project I sought to enter the action research loop not as lead actor but as support ‘gofer’ so to speak and to ground my journal observations on my direct experience, in this instance in co-building a boat with the lead actor, so here the emergent research categories were not pre determined by any particular theory though they were emergent from the application of grounded research. The ‘ghost of the exemplar’ is then to my mind the ghost of our humanness overreaching its previous grasp or gaze and ‘doing or going further and, if I may, better’. This is not to enter the debate on perfectibility and remains firmly within the hermeneutical epistem. This ‘will to excellence’ is the essence of the ‘ghost, gaze or grasp in the exemplar machine’ so to speak. It is the meta-heuristic that drives intentionality and as such according to Geertz is consciousness.

This philosophically existential position of the ‘ghost/scholar in the machine’ also raises the issue of the extent of in-commensurability within and between cultures and sub cultures. In this sense one could maintain that there would be in all research instances an irreducible residue of the ghost of something or other even if there were no attempts at co-

measurability via. *humanitas* as posited below, one would have the ghost of the indigenous categories.

In this regard somewhat akin to greats such as Bourdieu I humbly posit ‘*humanitas*’ as homologue of ‘*habitas*’. It is this ‘*humanitas*’ viz. our overarching or underpinning humanity that can provide the link between these relatively measurable in-commeasurable. This however is largely beyond the scope of this eBook.

Incidentally the ‘scholar in the sociological machine’ is for me somewhat analogous to the ‘ghost in the technological machine’. And the Ghost is that of the Artificer which again in line with Bourdieu has through *habitus* got beyond the algorithms and even beyond the heuristics to *get the game under ones skin* and, I argue, even deeper into ones visceral reality into ones head heart and hands – this, if I may suggest, is chiro-pedagogy at its best even positing a possible emergent chiro-ontology.

## **Chapter 10: Examples of Educational Actionista (EA) systems related to Artificer Educational Actionista (AEA)**

### **Exoteric Pedagogy exemplars**

#### ***Kibbutzim***

The Kibbutz originally were conceived as redeeming the Jewish nation through selfless work and personal sacrifice in basic labour – a back to basics approach. The first kibbutzniks hoped to be more than plain farmers in Palestine. They even hoped for more than a Jewish homeland there: they wanted to create a new type of society where there would be no exploitation of anyone and where all would be equal. The early kibbutzniks wanted to be both free from working for others and from the guilt of exploiting hired work. Thus was born the idea that Jews would band together, holding their property in common, ‘from each according to his ability, to each according to his needs’. Kibbutz political parties never called for the abolition of the market or private property. A type of an anarcho-syndicalist concept of the purity of basic labour abstracted from skill or specific human potential based on the trenchant belief of the supreme nobility of repetitive cleaning no matter what. Almost a detention centre mentality.

#### ***Russian System of Manual Training***

Some have asked how the Russians could have influenced our system of Technology Education. Victor Della-Vos, a Russian professor, developed the ‘Russian System’ in the 1860's. He exhibited his method of training at various shows around the world in the late 1870's. In 1876, Della-Vos came to Philadelphia for such an exhibition. In attendance at this showing was John Runkle, the president of the Massachusetts Institute of Technology. Impressed with Della-Vos' methodology, Runkle spread the word to others throughout the country. So attractive was his organization of instruction that it spread from the east coast to the midwest and from higher education to secondary schools. Traditional teachers of the time opposed manual training and it gained its first toehold in the elementary grades and in private schools .

The Russian system had eight rules or principles, which are as follows:

1. Each distinct manufacturing process had its own course of instruction.
2. Each student was to have a workstation.
3. Each successive course was more difficult and had to be taken in sequence.
4. Each student made technical drawings of models.
5. Each student created his own model from his drawing.
6. The student did not progress to the next model before mastering the current model.
7. Grades awarded to students were relative to their stage in the course and not overall quality .
8. Instructors had to have a proficiency beyond that needed to teach the course at hand and were required to maintain an exemplary level of mastery.

<http://www.bsu.edu/web/shhoagland/1500's-1800's.html>

### *Educational Sloyd*

Sloyd (Slöjd) meaning in Russian handy or skilful, also known as Educational Sloyd, was a system of handicraft-based education started by Uno Cygnaeus in Finland in 1865. The system was further refined and promoted worldwide, including adoption in the United States, until the early 20th Century. <http://en.wikipedia.org/wiki/Sloyd>

### *Esoteric Pedagogy Exemplars*

These systems have an esoteric or religions base nevertheless they are innovative and joined up and earn inclusion here.

### *Montessori System*

The Montessori method is a child-centred alternative educational method for children, based on theories of child development originated by Italian educator Maria Montessori (1870-1952) in the late 19th and early 20th centuries. It is applied primarily in preschool and elementary school settings although some Montessori high schools exist.

The Montessori Method is characterised by an emphasis on **self-directed activity** on the part of the child and clinical observation on the part of the teacher (often called a director, directress, or guide rather than a teacher). It stresses the importance of adapting the child's learning environment to his or her developmental level, and of the role of physical activity in absorbing abstract concepts and practical skills. It is also characterized by the use of autodidactic (self-correcting) equipment for introduction and learning of various concepts.

In particular the MS recognises the importance of 'the practical life' **Practical Life**. This area is designed to help students develop a care for themselves, the environment, and each other. In the Primary years (3-6), children learn how to do things from pouring and scooping, using various kitchen utensils, washing dishes, polishing objects, scrubbing tables, and cleaning up. They also learn how to dress themselves, tie their shoes, wash their hands, and other various self-care needs. They learn these through a wide variety of materials and activities. While caring for yourself and your environment is an important part of Montessori Practical Life education in these years, it also presumes to prepare the child for more: [http://en.wikipedia.org/wiki/Montessori\\_method#Practical\\_Life](http://en.wikipedia.org/wiki/Montessori_method#Practical_Life)

### *Steiner/Waldorf Education*

**Overview of Steiner Education:** Written by Bob Hale and Karen MacLean Last updated: 24 September, 2004 From Steiner Schools in Australia [www.steiner-australia.org](http://www.steiner-australia.org) and Gidley (2008).

**Philosophy:** Steiner schools have a unique and distinctive approach to educating children, aiming to enable each stage of growth to be fully and vividly enjoyed and experienced. They provide a balanced approach to the modern school curriculum. The academic, artistic and social aspects, or 'head, heart & hands', are treated as complementary facets of a single program of learning, allowing each to throw light on the others.

This is implemented by using art as a practice, and language to develop the feelings, by nourishing the children with the rich heritage of wise folk tales, histories, fairy stories, poems, music and games that are part of our world civilisation. This creates the cultural

atmosphere in which the children are taught reading, writing, arithmetic, nature study, geography, science, languages, music and other subjects.

Steiner designed a curriculum that is responsive to the developmental phases of childhood and the nurturing of the child's imagination in a school environment. Steiner thought that schools should cater to the needs of the child rather than the demands of the government or economic forces, so he developed schools that encourage creativity and free-thinking. His teaching seeks to recognise the individuality of the child and through a balanced education, allows them to go into the world with confidence.

An important aspect of Steiner's educational Zeitgeist was the engaged nature of this which included eurythmy (discussed further in Appendix G) which integrated text movement and music.

*The need for imagination, a sense of truth and a feeling of responsibility – these are the three forces which are the very nerve of education.* <http://www.steiner-australia.org/other/overview.html>

### ***Ananda Marga – Neo-Humanist Education***

#### **Aims and Ideals of Neo-Humanist Education -To:**

1. Develop the full potential of each child: physical, mental and spiritual
2. Awaken a thirst for knowledge and love of learning
3. Equip students with academic and other skills necessary for higher education
4. Facilitate personal growth in areas such as morality, integrity, self-confidence, self-discipline and co-operation
5. Develop physical well-being and mental capabilities through yoga and concentration techniques, sports & play
6. Develop a sense of aesthetics and appreciation of culture through drama, dance, music, art
7. Encourage students to become active and responsible members of society
8. Promote an awareness of ecology in its broadest sense: i.e. the realisation of the inter-relatedness of all things, and to encourage respect and care for all living beings  
Encourage a universal outlook, free from discrimination based on religion, race, creed or sex
9. Recognise the importance of teachers and parents in setting an example.  
<http://www.amriverschool.org/index1.php> Jitendrananda & Wildman (2003)

### ***Hare Krishna***

Hare Krishna Playgroup: Just before the end of Term Four 2002 the Hare Krishna Playgroup started in the house of Hina and Pankaj Gandhi, 862 Dominion Road, Mt Roskill. Auckland New Zealand. The Playgroup is now closed for the Summer break and will open at the end of January. For further information contact – <mailto:pankajdiamond@hotmail.com> I hope this meets you well, Yours in the service of Krishna, Krsnendu dasa

Hare Krishna School: Thinking of enrolling in the Hare Krishna School or Hare Krishna Playgroup? Want to find out about... curriculum? school bus? school fees? future plans for the school? Come and have your questions answered!

**Hare Krishna School is a state-integrated primary school that covers all subjects in the New Zealand Curriculum plus Sanskrit, Vedic culture and values in a rural setting.** Bus transport is available every day from central suburbs (Sandringham, Mt Roskill etc.). Hare Krishna Playgroup provides early childhood education for children aged 3-5 years at two locations: Riverhead—Krishna conscious education for preschoolers in a rural setting. Mt Roskill—Krishna conscious preschool education in English and Hindi. <http://www.hknet.org.nz/HKAuckland-page.htm#AboutHK>

### *Centre for Purposeful Living (CPC)*

Center for Purposeful Living, Winston-Salem, NC ([www.purposeful.org](http://www.purposeful.org)). Impressive organisation that harness volunteer energy extensively to assist in respite and care homes etc. Generally however the group's ethos has the view that volunteers do basic repetitive tasks (much like the conventional 'vollies stuff envelopes' approach) – this disrelates the group from the Artificer/Bush Mechanic. Their response is that such reduction of labour to its most simplistic basic repetitive units is necessary as the principal task is spiritual service not temporal mastery. And maybe they have a point.....

## Chapter 11: Cumulative key criteria for designing & Educational Actionista type social systems

In terms of this topic key prioritised prerequisite criteria for designing socio-economic systems are: **Exoteric**

1. **Secular**
2. **Convivial** (ultimately contextually Syntropic viz. entropic → Syntropic ← negentropic)
3. Efficaciously **glocal**
4. **Innovatory** inc. Schumpeter's creative destruction of capitalism with ethical market vitality
5. Operationally **technological** – HHH viz. Hand, Heart, Head
6. **Economically** physical (physico~prime)
7. Socially **integral**
8. Ontologically prima mobile axis mundi wise - **physiospheric** viz. physiospheric ∞ noospheric
9. **Democratically** Isonomic and equalitarian-ly inclusive
10. **Governancally** harmonising of diversity not centralising of conformity
11. **Holonically** creatively evolvable – sustainable
12. Strong **agency** presence in Structure | Agency balance say 70 | 30 cp. present 90 | 10
13. Wise **proactive** Governance – acting ahead wisely
14. **Suburbo-topia** (has to work in civic society now starting from where we are now – living in the 'burbs)
15. **Rurban** ability to integrate rural and urban in town planning design)
16. **Transmodern**
17. **Syntropic (entropic→Syntropic←Negentropic)**

**Scoring:** nothing or no one is perfect indeed perfect means imperfect to be perfect – so that if we allow a score of 10 to mean achieved within this imperfect imperfection idea then a score of 6 out of 10 (i.e. 100 overall) of the 15 or so of the key parameters above would be required and substantial work undertaken where the score is 4 or less.

### Systems evolution as isomorphic with pedagogy, and the Bushy

This eBook suggests the following simple taxonomy of Systems Theories (ST's): (1) Mechanical/Closed ST, (2) Chemical/Physical ST, (3) Behavioural/reactive/instrumental ST of stimulus-response, (4) Cybernetic ST (inc. feedback loop), (5) Biological/Open ST, (6) Noospheric/Symbolic (incorporating the previous S T's with the inclusion of Symbology, consciousness and ideas, Universities and Pedagogy is locked in here), (7) Praxial (incorporating the previous ST's with the inclusion of socio/ecological empowerment) and (8) Post Rational Mechanical ST or Post Post Post modern or Transmodern (as per above list) and Post Post Post structural Praxialwholism that includes consciousness, emergence and action research and thus Artificer Learning and the Bushy. I strongly advocate that the artificer fits into ST (7) and (8). In general i would argue that there is an isomorphic evolution of pedagogy.

Each particular system meets its own potential and thus in different applications each is relevant – *horses for courses* as the saying goes. However for complex dynamical systems with unpredictable perturbations, that is our present day global problematique, the first three don't help much where as number (4) does however intelligent response is not included so that in our current circumstances numbers (4), (7) and (8) are, I argue the most appro pos. Flood (1999: Ch's3&4) refers.

### **The key primary categories emergent 'grounded theory' wise from the above**

In overview in grounded theory sense four primary categories emerge from the above, with Wisdom being the macro category that (a) includes the greatest number of the above criteria and that (b) the other three categories relate to viz.: **Wisdom** (1, 2, 4, 10, 11, 12, 14, 17) | **Mutual Aid Sustainability** (3, 4, 5, 8) | **Self-help and reliance skills** (5, 6, 7, 9, 13) | **Community socio-economic system to support this** (15, 16, 18).

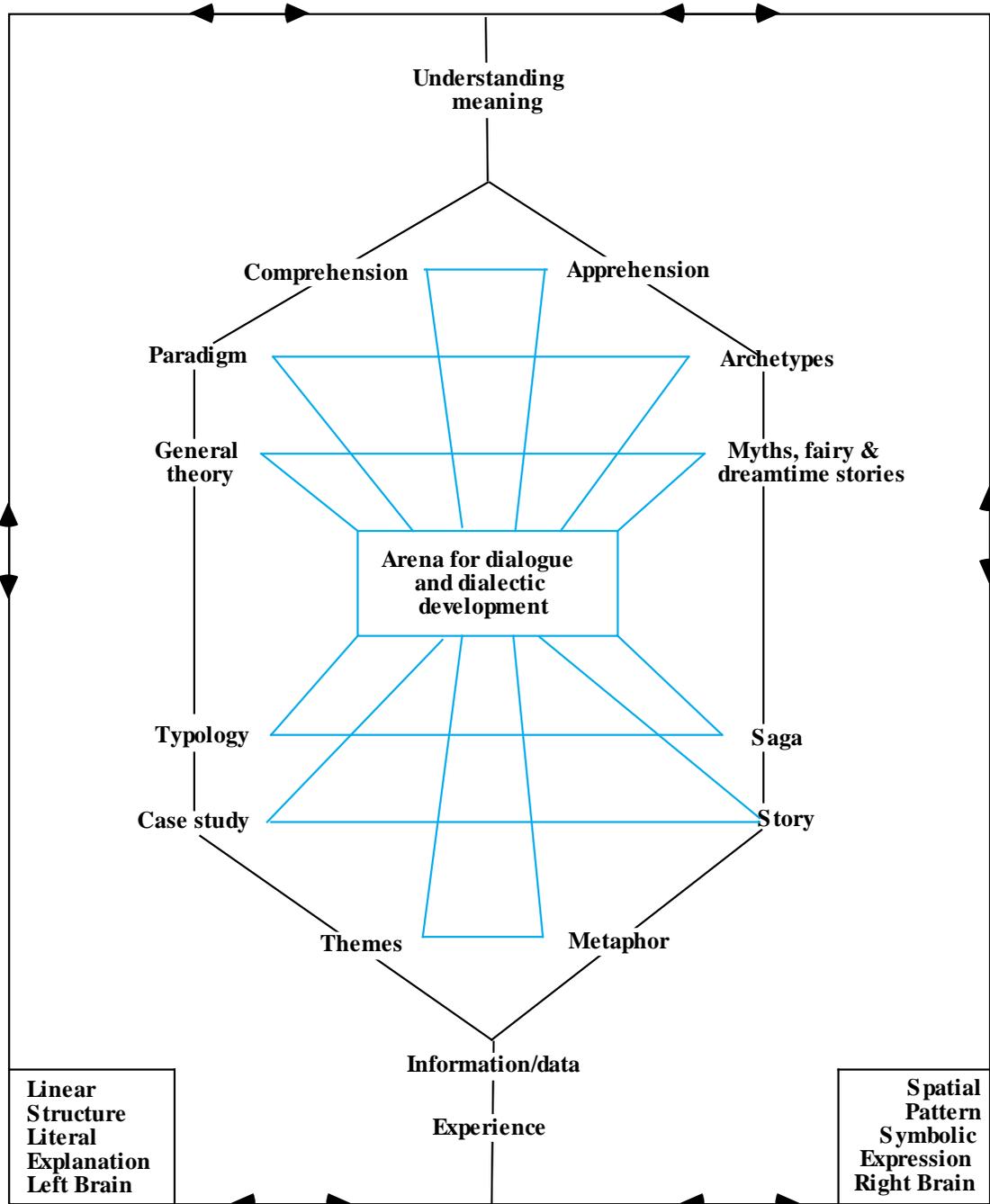
### **Explicating Techne**

Math | Myth: In this senary series one can see another dialectical merged duality/contraries of myth and math. Contraries are a Romantic (Blakean and Coleridgian epistemic systems) where dualism such as 'heaven and hell' are mutually dependent on one another for their respective existence and are not meant for resolution of synthesis or climax into a unified field rather they stay in dialectical potential difference generating as it were dialectical flux and thus energy.

Indeed if I may suggest, somewhat tongue in cheek, that the Bush Mechanic's Logic Base Principles represent the macrohistorical 'myth'ing link' in pedagogy between behaviourist vocational education and noospheric higher education, wherein Artificers may be seen as 'mythomathicians'. This can also be seen in the Math | Myth diagram (below) and the Romantic Artificer's path is the one less travelled on the Right Brain side which is the Right Brain Path.

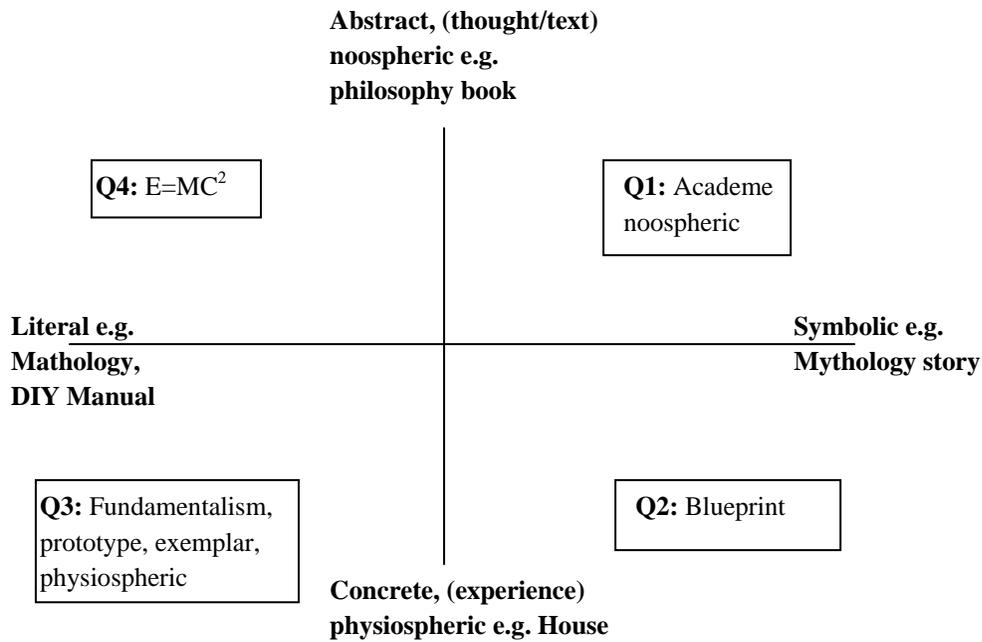
**Techne Trilogy: explicating, situating and locating techne**

**Trilogy Figure 1/1:** *Techne working from both sides of the brain - Math and Myth - a dialectic equivalence*



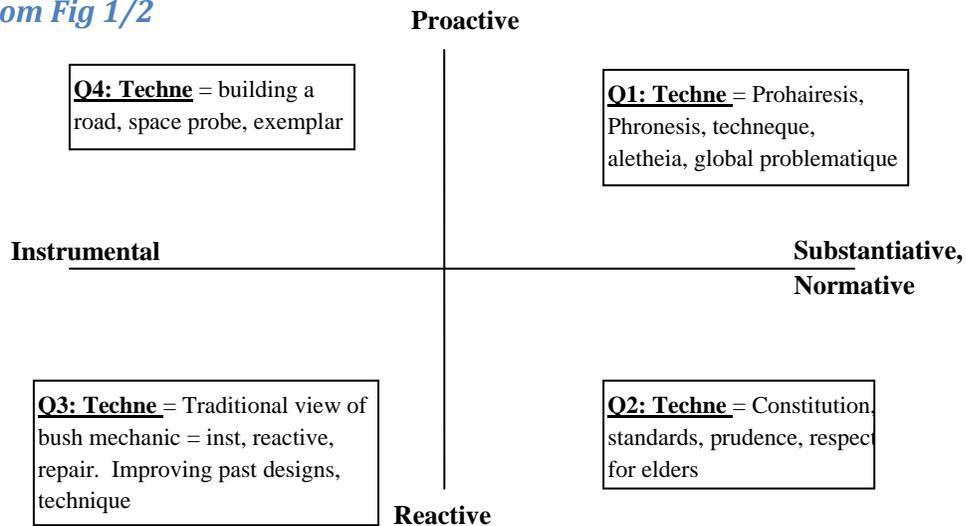
**Source:** Wildman and Inayatallah (1996). **NB:** (1) in indigenous societies thinking is located more in the symbolic side and techne expresses itself through visits to the LHS. (2) Modernity locates more on the LHS with technique and manifests techne via. visits to the LHS for meaning, (3) Techne relates to both math and myth whereas technique relates to math only and supposedly is objective and rational and has no implicit values.

**Trilogy Figure 1/2: Ontological Anchor (OA) – Extending Math and Myth dialogue in a four quadrant analysis**



**Source:** P Wildman 03-2009. Y Axis = locus of authenticity of one's ontology; X Axis = primary modus operandi for the representation of same

**Trilogy Figure 1/3: Situating Techne: Four quadrants of techne for locating ones OA from Fig 1/2**



**Source:** P Wildman 03-2009

## ***Enter the Glocal Transmodern Quadrinity (GTQ) viz. the Actionista Quadrinity***

For instance the **Actionista Quadrinity** of: Elder | eNuffer | Artificer | CED, judged on criteria No's 1-11, 13-14, 16-17 score  $77+8+6+7+8=106$ .

## **Educational Actionista (EA), emergent from Educational Sloyd to GTQ to Artificer Educational Actionista (AEA) (Artifista)**

In this eBook Artificer Educational Actionista (AEA) is short for the Glocal Transmodern Quadrinity (GTQ) of: Elder | eNuffer | Artificer | CED, coalescing around a central (series of age relative, formative and developmentally progressive, mentored) actionista Exemplar Project. **Educational Actionista** (Artifista – if I may) then many be defined as *'someone from the street who celebrates, while acting on their upfront refusal to stand by and instead chooses agency over submission to structure in order to take control, as far as practicable, over their own learning and thereby destiny, particularly in regard to practical learning that refers to matters ordinarily seen as beyond the power of individuals and one who believes and knows that they can change the course of history based on the power of their, and their peers' street bred street cred actionista actions'*.

The *Actionista Quadrinity* as above includes wisdom | self-reliance | DIY skills | sub-culture network marketing often web based. Actionista is not about acting as in jackarse type acting yet acting out of your box action e.g. young women seriously doing serious sports action in male dominated sports, can also be seen as GTQ manifest through CEC - Community Economy Conscientisation - layered re-localisation - barefoot, integral, wholistic, anticipatory, action-oriented, *animateurial* and *salutogtronics*. Also related to *fashionista* one who obsesses about fashion from within in that s'he makes her fashion statement clothes etc. Also related to *'barista'* one who excelled in the art of making good coffee. Another etymo-link from actionista is *actronics* and is anchored in the relevant (sub)cultural (electronic electrobopop) zeitgeist thus it articulates to *architectronics* even *anrchotectronics* and ultimately *actionistatelectronics*.

I would hope than that the term actionista is then both inspirationally heroic and transformationally counter-hegemonic.

[http://video.google.com.au/videosearch?q=actionista&oe=utf-8&rls=org.mozilla:en-US:official&client=firefox-a&um=1&ie=UTF-8&sa=X&oi=video\\_result\\_group&resnum=4&ct=title#](http://video.google.com.au/videosearch?q=actionista&oe=utf-8&rls=org.mozilla:en-US:official&client=firefox-a&um=1&ie=UTF-8&sa=X&oi=video_result_group&resnum=4&ct=title#) accessed 02-02-2009

## ***Artificer Educational Artificer: Techneque of Learning Techne***

Attributes my researches, readings and experience indicate apply to this are:

1. The Apprentice must want to learn
2. The Apprentice must want to be engaged
3. 10,000 hour immersion required in developing techne and the capability for, and actually producing, the exemplar project inc. action oriented, practically focused, self structured, mentored, deep and broad
4. Deep opportunity needs to exist – horizontal – doing different aspects of the job and mentored and mentoring – vertical
5. Joined up interface - delivered from the customers perspective
6. Luck – happenstance – serendipity – fortuitousness
7. Practical intelligence – which is orthogonal with general intelligence

8. Deeply supportive family and community – includes the cultural context, permissions given to the child/Apprentice to try out, challenge and question, agency encouraged in and of the Apprentice, intentional cultivation and mentoring by the parents/community members (this is the real/original meaning of ACE). See also Gladwell (2009:113)

**Readers Note:** Exclusions 1~ Esoteric Groups - There are several styles of engaged yet esoteric education Ananda Marga, Steiner, Hare Krishna and so forth. In a sense Steiner is esoteric/a subset of Christianity and AM and HK are subsets of Hinduism. There are also many semi-religious groups and callings to service such as Mother Theresa, various types of monks (Buddhist, Christian, Islam, Waiters Guild, and so forth). Like Steiner however they are an esoteric spirituality which distils as per the founder's vision to the mundane world in terms of the educational systems we see today. This is not at essence a secular or ground up approach and as such is not directly covered in this eBook.

**Readers Note:** Exclusions 2 ~ Anarco-synicalists - These are deep educational systems however and do demonstrate, intriguingly the importance of various aspects of the artificer engaged process of learning. There are also various Anarco-syndicalist and other groups seeking forms of utopia. As such they are an ontological discourse and thus beyond the scope of this series as an educational or pedagogical discourse.

## Chapter 12: Applying the Criteria: Comparing Educational Actionistas

This section is a short list of the above in order of those most directly related to the KALGROVE style of artificer learning. For better or worse and many would argue worse the KAL AE is a pedagogy that recognises yet seeks to reconstruct ‘capitalism inc. the market, money, and property rights, family relations based on the extended nuclear family and long term pair bonding. I submit that, as far as possible, the readers judgment of AEA should not be wholly determined by their view of the unacceptability of my treatment these issues which I contend are outlier issues to the central purpose of the piece i.e. to invert and reconstruct pedagogy.

It turns out that this is not possible unless one also redesigns its life support system that at present feeds the *capitalista horribilista*. This eBook seeks to do with the achievable without positing a ‘news from nowhere’ style re-visioning which is as a utopia simply and bizarrely unachievable, in the authors opinion. Morris (1890).

### [KAL1] Community Service Organisation - Waldorf Education - Brazil

An example of a KG is in [Brazil](#), a teacher, Ute Craemer, founded a Community Service Organisation (CSO) providing childcare, vocational training and work, social services including health care, and Waldorf education to more than 1,000 residents of poverty-stricken areas ([Favelas](#)) of [Sao Paolo](#) Brazil. Craemer was also a Waldorf teacher.

<http://www.bring.com/workshop/archives/2005/02/03/finding-blue-in-a-sea-of-gray-ute-craemer-and-the-associacao-monte-azul/> also

<http://www.connectivity2006.org/index.php?id=738> and

<http://www.threefolding.freeuk.com/favela.htm>

In English, to feel ‘blue’ signifies being depressed or sad, but in Portuguese ‘azul’ (blue) signifies the opposite emotions of well-being and happiness. At first glance then, a sea of gray-brown shanty houses and slums seems like the least appropriate place to be named with this colour of hope, but the Monte Azul (‘Blue Hill’) favela in São Paulo carries the name regardless, and since 1975 the Associação Monte Azul has been proving that the name fits. German Ute Craemer was living and teaching in São Paulo, Brazil in 1975 when a young girl from the Monte Azul favela (ghetto/slum) knocked on her door begging for food. The teacher recognized the girl’s needs went beyond food though, so she built a work area in backyard to help meet the needs of those living in the Monte Azul favela.

Her backyard workspace would later migrate to the favela and become the Associação Monte Azul. Today the Associação improves the lives of thousands of favelados (favela dwellers) through a number of its services, including basic literacy education, kindergarten and preschool, outpatient clinics, carpentry and electrical workshops, bakeries and toy making facilities. Monte Azul’s toy dolls and wooden educational toys are sold both locally in Brazil and throughout the world, and its ‘bonecas’ (dolls) are popular items in [Fair Trade](#) shops. Several photos of Monte Azul toys are depicted below, with more available from [Monte Azul’s product catalog](#).

### What then is Steiner's Social Threefolding?

Even a cursory examination of global societies reveals that they all have three functions or spheres of activity under which all other social activities can be subsumed: - **cultural sphere** - **rights sphere** - **economic sphere**  
All three spheres are mutually interdependent and before we make conscious their functional differences and give each their dues are intermingled often in ways which make for an unhealthy body social. By the '**cultural sphere**' we mean that which enters human society through the unfettered exercising of human spiritual activity such as thinking, moral judgement and being creative. Here we include all the arts, scientific research, religion, education, invention and enterprise. By the '**rights sphere**' we mean all that human beings in a society -- local, national or global -- agree to as the fundamental rights between one another in all their interactions. This embraces lawmaking, governance and representation of the people and coincides with political life in its purest form. By the '**economic sphere**' we mean transformation of the products of nature into products suitable for use by human beings. Everything from the acquisition of the products of nature (e.g. mining, hunting) to farming, manufacturing, trade and end use (consumption) is part of this sphere.

To each of these three spheres belongs its proper *Leitmotif* or ideal: (1) *cultural sphere* – **freedom, sustainability** (*Libert* ♦); (2) *rights sphere* -- **equity, equality, governance** (*Egalit* ♦); (3) *economic sphere* -- **brotherhood, solidarity, CED** (*Fraternit* ♦). [Further there are links to communitarianism in her work and supporters e.g. <http://www.sab.org.br/montezul/english.htm> ]

### *From Community Service to Communitarian Service*

**The CSO was extended in 1979** to ACOMA- one of the goals of ACOMA (which is Spanish for Monte Azul Communitarian Association) , <http://www.sab.org.br/montezul/english.htm> ; <http://www.montezul.org.br/english/> which was formed on 25-01-1979, to carry on Ute's work, is not just transmitting information to children and young people, but educating them. This is done through participation in their global development and giving incentive to young people and adults to take their destinies in their own hands, **thus making them able to transform the harsh reality of their social environment. Social Justice Focus.**

Communitarianism, as a group of related but distinct philosophies, began in the late 20th century, opposing in its opinion exalted forms of individualism while advocating phenomena such as civil society. Not necessarily hostile to social liberalism or even social democracy, communitarianism emphasizes the need to balance individual rights and interests with that of the community as a whole, and that autonomous selves are shaped by the culture and values of the community.

Educational work [ACOMA works in these areas: 1 pedagogical, 2 professional, 3 cultural, 4 health, 5 social] done with children is extended to young people and adults through professional courses. In the workshops are offered not just basic professional skills, but also training in reading and writing. Moreover, a school for handicapped children and young people was created, alongside two protected workshops on musical instruments and weaving. Educational activities involve:

- Nursery (about 200 children) - to see a picture of a nursery, please [click here](#).
- Kindergartens (about 100 children aged 3-6)
- Pre-school (about 80 children aged 6-7)
- Youth center (about 400 children and young people aged 7-14 in 3 nuclei)
- Art workshops
- Cabinetmaking (joinery): learning and producing (about 40 young people aged 13-17) - to see a picture of the carpentry with playthings produced there, please [click here](#).
- Bakery: learning and producing
- Electrical and computer workshop (12 young people)
- School for handicapped (50 children and young people)
- Course for nursery, kindergarten and youth center educational assistants.
- Social workshop for young people and community educators
- Workshop in furniture recycling (10 young people aged 15-21)
- 'Tribo da Trilha' [Trail Tribe] - ecological-cultural excursions

**[PWΣ]:** *Bushy doesn't readily fit into this three fold path which are essentially systems – the bushy is an agentic citizen component in all three spheres and helps esp. catalyse the last (3) the project though in its outworking comes closest to a KG]*

### **[KAL2] The Learning Enrichment Foundation - Canada - LEF -**

LEF was formed twenty-eight years ago in what was then the City of York. Over the years LEF initiated programs and services that reflected the needs of the local community. As a reception area for recent immigrants, and as the part of the Greater Toronto Area with the highest levels of poverty indicators, there was much to be accomplished. LEF now is a leader in community economic development, particularly as it relates to human capital, and still serves the local community. LEF has child care centres, schools, training colleges, high schools, social outreach and adult learning under the one management umbrella. However, poverty and unemployment are not unique to the former City of York. Therefore LEF attracts people from across the GTA.

<http://www.lefca.org/index.php?module=ContentExpress&func=display&ceid=4&seid=1>

**[PWΣ]:** *the LEF is more a management amalgam than a coherent single mission integrated initiative – it is a practical initiate that carries through where for instance LG doesn't]*

### **[KAL3] The Centre for Purposeful Living – US – CPL**

Kilpatrick, J. and S. Danziger. (1996). *Better than Money can buy: The New Volunteers*. Winston-Salem: Innersearch Publishing. 160pgs. Joe Kilpatrick discussion points: <mailto:josephekilpatrick@hotmail.com> for 26-09-07 Centre for Purposeful Living, (CPL) Winston-Salem, NC ( [www.purposeful.org](http://www.purposeful.org) )

**Discussion** - we each step back from 'ownership', personal agendas, targeting the other's ideas, use of 'same as', 'if only' and 'yes but' and allow constructive critique and engagement towards a positive joint understanding and possible initiative.

1. Nature of skills - in exoteric terms your Selfless service is narrow and shallow and is aimed at lowest common denominator type mentality of the volunteer.
2. Founders frozen experiment?
3. Social innovation process - how do you grasp the Zeitgeist and translate this to structural change in HAS? This translation was done originally a generation ago - before global warming, Iraq and the internet, now times have changed.
4. Esoteric | Exoteric differential? For you selfless service is deeply esoteric yet limitedly exoteric where as the bushy is the reverse
5. Artificer is about innovation and exemplar (exoteric artificer | esoteric alchemist – e.g. see Iona Miller url in References website section) not about operations so that we have a second difference between the two in my terms the Artificer's exemplar - it is the concept design and construction and implementation of the Fresh Foods Buffet or the Respite care centre not its operations

**Key concepts** 1. Selfless Service. The Kibbutz redeeming the Jewish nation through selfless work and personal sacrifice in basic labour. The first kibbutzniks hoped to be more than plain farmers in Palestine. They even hoped for more than a Jewish homeland there: they wanted to create a new type of society where there would be no exploitation of anyone and where all would be equal. The early kibbutzniks wanted to be both free from working for others and from the guilt of exploiting hired work. Thus was born the idea that Jews would band together, holding their property in common, 'from each according to his ability, to each according to his needs'. Kibbutz political parties never called for the abolition of the market or private property. A type of an anarcho-syndicalist concept of the purity of basic labour abstracted from skill or specific human potential based on the trenchant belief of the supreme nobility of repetitive cleaning no matter what. Almost a detention centre mentality.

**Service** is about reducing human input to (1) simple tasks horizontal division of labour- for (2) 'caring activities' i.e. labour segmentation so that (3) 'simple' people with 'limited exoteric potential' - segmentation of labour can achieve a sample of nirvana through this the detention centre mentality - labour sterilisation - the proletariat. Pg 43

**What is service?** ~ basically repetitive determined low skilled segmented long hour labour i.e. task rather than skill rather than techne. Redemption through the self imposed almost monastic rigours of the spiritual chain gang brother!! elite though it may be. Accepting of the status quo or by implicitly rather than complicity (like Mother Theresa) not directly working to change it. In this sense labour is not in Fiere's terms conscientising. 59. Esoteric/spiritual awakening from this effectively bypasses exoteric politisation/conscientisation - separate to the transformation of the status quo or the achievement of techne.

*[PWΣ: CPL denigrates volunteerism and skills and is in this instance the exact opposite of what a KALGROVE is – it does other excellent work in the hospice etc that KALGROVE does not]*

### **CPL Commentary @ 05-2009:**

(1) Essentially CSO is an esoterically standpoint integrated initiative (Steiner/Waldorf) that outworks itself in the exoteric world in the three fold path

(2) Essentially LEF is an management standpoint aggregation of bureaucratically discrete CSO type programs (many Govt) with an emphasis on learning – there is no essential integration rather a management admin web keeps it together and presents it as a single entity.

(3) Essentially reduces skills to Lowest Common Denominator (LCD) task so that maximal life energy can be devoted to spiritual endeavours

### **[KLA4] Kalgrove Pty Ltd.**

#### ***What is KAL AE? 6 key criteria for a KALGROVE learning system***

**[KAL]** Essentially KAL Actionista Education is an AEA that takes its standpoint epistemology is (1) techne that outworks itself within the (1.1) exoteric project out such that learning is interfaced (1.2) vertically (age), (1.3) horizontally (joined up projects) and (1.4) socially (social mix) and meets (1.5) the four criteria of the Artificer (Exemplar, Social Holon, Global Problematique and Action Learning).

This table then, is an approximation of the KALGROVE (Kids and Adults Learning seeks to be a distillation of this techne oriented chiro-philosophy)/ Educational Actionista vision (for what that is worth).

**Table 3: KALGROVE ~ 11 Educational Actionista (EA) attributes/criteria/categories applied to 7 KAL type initiatives**

← ---- E x o t e r i c ---- →																			Eso- teric
EA/KAL criteria →	KAL Educational Actionista has these 11 criteria (green – direct & 3 blue - indirect below) as alternative interfaced pedagogy that integrates pedagogy and androgogy towards the joined up activist citizen based on the alternative the epistem of techneque which, in its broader context moves from Artificer Learning to include a community conscientisation through: economic context (CED), good governance (elder) and sustainability (eNuffer), wise agent (artificer/techne)																		
	Artificer Learning – Bush Mechanic – integrates these 11 criteria											C4: Other Systems related - Exoteric criteria x5							
	C1Techne x2 (develops Techne)		C2. Artificer criteria x4 (expresses Techne)				C3. Interface x5 (interfaces Techne)												
EA/KAL Example↓	Indiv- idual	Sys- tems	Exem- plar Proj	Social Holon	Global Prob 'que	Artic Learn	Vert LLL Horiz related callings	Horiz LWL	Social	INP	LL	S	CED	Govn- ance Elder	Sustain- ability eNuffer	Culture	Health	S	Spirit -ual Path
	1	2	3	4	5	6	7	8	9	10	11		12	13	14				
CSO	6	4	6	7	6	6	7	5	8	8	8	70	4	4	6	7	8	29	8
ACOMA	4	5	4	7	4	5	4	4	8	6	5	56	6	4	4	8	5	27	2
CPL	2	3	2	6	4	2	0	3	5	0	2	37	2	1	3	3	4	13	6
Prout	3	5	7	6	7	4	5	4	5	7	5	51	7	2	7	5	8	29	8
LEF	7	6	3	8	6	3	6	8	7	5	7	66	4	5	3	6	6	24	2
CED/Ped	2	2	0	2	2	0	2	0	2	2	0	14	0	0	3	3	4	10	2
AEA/ KAL	8	7	9	7	8	9	6	8	6	7	8	83	6	6	6	5	2	25	2

Source: P Wildman V8: 03-2009. KAL Learning inc. direct – Artificer Learning and related – KAL context learning (inc. cEd, Elder, eNuffer).

Themes: NGO~CSO = Religious/spirituality calling (Steiner/Waldorf) exoterically expressed as a Community Service Organisation – type of NGO <http://www.brinq.com/workshop/archives/2005/02/03/finding-blue-in-a-sea-of-gray-ute-craemer-and-the-associacao-monte-azul/> also <http://www.connectivity2006.org/index.php?id=738> and <http://www.threefolding.freeuk.com/favela.htm>

NGO~ACOMA = exoteric broad based NGO with aggregation rather than integration of purpose(s)z

<http://www.sab.org.br/monteazul/english.htm> ; <http://www.monteazul.org.br/english/> Monte Azul Communitarian Association [Associação Comunitária Monte Azul] (ACOMA)

NGO~CPL = Centre for Purposeful Living - standard religious/spiritual first type NGO where the exoteric calling such as skill is basic and heavily routinised [www.purposeful.org](http://www.purposeful.org) [CPL at this point does not have Kids Learning]

NGO~Prout = Ananda Marga/PROUT – essentially similar to CSO – based on my experience of their Master Units.

See Rama (2000) <http://www.pia.org.au/> ; Neo-humanist Education <http://www.amriverschool.org/> Maleny Qld

LEF = Learning Enrichment Foundation – Ontario Canada

<http://www.lefca.org/index.php?module=ContentExpress&func=display&ceid=4&secid=1>

EA = Educational Actionaista ≡ KALGROVE intent

**Abbreviations:**

**INP** – Intelligent Narrative Play – Kids in Active Learning

**LL** – Lived Life of the citizen (child/student/adult learner) is the context for **ALL**

**LLL** - Life Long Learning (vertical interface) throughout student's lifecycle.

**LLL** – Life Long Learning (vertical interface) throughout student's lifecycle.

**LWL** – Life Wide Learning – (horizontal interface) refers to student learning in real contexts and authentic settings.

Such experiential learning enables students to achieve certain learning goals that are more difficult to attain through classroom learning alone. It helps students to achieve the aims of whole-person development and enables them to develop the life-long learning capabilities that are needed in our ever-changing society also life-wide learning recognises the formal, non-formal and informal settings. See <http://en.wikipedia.org/wiki/TRIZ> for a Russian concrete four sector engineering application of Experiential Learning

**ALL** = All of Life Learning then is the vertical and horizontal interfaces = **LLL** + **LWL**

**CEd** = Conventional Ed/Pedagogy e.g. schools/Unis etc.

**CED** = Community Economy Development

**Techné** then situates the curriculum standpoint within the lived life of the *individual* student, the technacy of the *systems* involved in a particular project situation and the centrality of the hand (in and out) as source of intelligent knowing about, knowing of and knowing in the world whereby tools are an extension thereof not the replacement therefore. The hand then, through techné, is the doorway between the physiosphere and the noosphere in that order. Here Technacy is the context within which techné locates. Seemann (2000), (2003), (2006).

**Scoring:** 1 no – 10 yes. For an exoteric techné based pedagogy one would need an average score of, in my view, 7 i.e. a minimum of Green Score 77.  $\Sigma$ : so KAL/EA is a Techné based ALL, LL integrated (not aggregated) pedagogy based on the Bush Mechanic style of learning.

**Observations:**

- (1) Waldorf education comes closest to EA, however it is essentially an esoteric path cp. for instance to an exoteric techné one such as EA, and,
- (2) Ultimately the esoteric trumps the exoteric without exoteric rationale – it's what God is telling me to do or the Koran or Bible says so and that's that i.e. one is a pilgrim before being a citizen. This critique also fits Ananda Marga and Hare Krishna.
- (3) Further as this eg Steiner/Waldorf/BioDynamic etc path is the my esoteric path then it is the path I must follow that is the whole path not 90% of it and 10% of another in this sense I cannot be critical of my path or for that matter compare it to another (as I have done for instance above).

## Chapter 13: Quo Vadis the Bushy

In this chapter<sup>xxvii</sup> we touch on the outlier issues that will impact the viability of the Bushy in terms of the potential for its rehabilitation with in mainstream society if not as part of the new Status Quo. This rehabilitation is sadly extremely unlucky, say less than 0.1, without a Crash And Burn scenario coming into play, when it has at least a 0.9 chance of applicability.

As Freire has said to be effective one needs to be ‘tactically inside yet strategically outside the system’ one is seeking to change. Mayo (2004:79). In a sense the Bushy has rights both inside and outside the system with the ability to go under the systems radar for extended periods. So in this regard and particularly in regard to the congruence between the Bushy and the ‘grain of our brain’ if suspect the bushy will be with us long after our current hyper financial capitalist system has jaded and faded and the singularity has come and gone. To the extent that we wish to live peaceably our erstwhile robot compatriots I strongly recommend a hefty dose of Bushy Logic Base upload at the singularity. I doubt we have the wherewithal for this to occur. Though many of us will be, and have been, shot, imprisoned and worse the bushy as a part of what it is to be fully human will go on, even as being fully human takes on new technologised and hopefully technelogised meanings.

Now we touch on the issue of leveraging or magnifying or networking or scaling up the bushy.

### *Alternative Futures and Scenarios and the link to the Bushy, KAL, and Virtuality*

Although outside the scope of this eBook KAL if it is to have any tr’action in future will need to engage a Social Innovation Process based on a Futures Scenario (see below). Many authors such as Bussey, Inayatullah and Milojevic (2008) and from my futures work I have found futures scenarios for the organisational environment 10+ years out usually come in up to six regular categories (only scenarios (4) and (5) include KAL):

- (1) **More Of The Same** – the Status Quo optimised – bigger and better with high tech fixes
- (2) **Business As Usual** – steady as she goes
- (3) **Back 2 Basics** – return to the pioneering days of purity of intent and extent
- (4) **Crash And Burn** – the Status Quo collapses – KAL approach valid to a large extent
- (5) **Up Up and Away** – transformation that works – virtuality - KAL approach to a small extent
- (6) **Outlier/Wildcard** – the unpredictable and un-anticipatable

**Scenarios** are often variations around a common theme where as alternative futures are different themes. **Alternative Futures** then are similar to scenarios yet have to be substantially different from one another in a sense each its own generative theme around which scenarios could be built/grown. Thus (1) and (2) above collapse into one another and 6 is generally outside the schema. This leaves four basic alternative scenarios of 1 Business As Usual, (2) Crash And Burn, (3) Back To Basics and (4) Up Up and Away. In an Alternative Futures sense I see the primary possibility of the move not from text to tool but from text to screen, to computer games. I put the probability split percent at 10%(KAL – tooled

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<sup>xxvii</sup> This Chapter is dedicated to my Economics Professor from 1974-5 and mentor the late Professor Rod Jenson whose key address to the Regional Science Association of the late 1970’s was entitled Quo Vadis Regional Economics.

knowledge)/80%(Computer Games – Virtual knowledge) with the remaining 10% for other possibilities. The advantage of computer games, which my grandson spends several hours a day playing, are that they are ‘easy to learn and hard to master’. [NB: That computer games and virtuality represent the undergrounding of the Bush Mechanic instinct is explored more fully in eBook1 see Wildman (2008:159, 169 and 183)].

### *The Bushy and KAL – our disowned future*

Generally in my futures work I have found the two areas where our disowned future resides are in (4) Crash And Burn and (5) Up Up and Away. Our KAL scenario is I believe relevant in both. In a nutshell I adduce that this eBook series provides ample evidence for the reality of efficaciousness of **the Artifice based Kids and Adults approach** to Pedagogy and that it **remains** nevertheless **modernity’s i.e. our disowned future** and deeply so. Whereas this eBook series has attempted to show how KAL and be a (not the) genuine alternative future.

I posit that the future most Australian’s want is the future promised in the National Australian Curriculum which is from (3) Back To Basics, for (2) Business As Usual with any problems being addressed by the elite through (1) More of The Same, basically why we got in this mess in the first place. Yet, outside school, most young people see tomorrow as (4) Crash And Burn with a contagion and continuum of global, local and national problems. No one thinks in terms of Up Up and Away. No state or national curriculum in Australia as at 04-2010 includes; KAL, the Artificer or Futures Studies. None engage this CAB dilemma that so deeply deeply worries our children.

### *MetaStrategy Tips for the would-be Bushy in dealing with the Status Quo*

In my extended experience I find the Status Quo System (SQS) we eat, live, and have our being in is at least twice as smart and powerful as we think it is. To bring about change, in order to help save the planet, we have to outwit it somehow as it has, is and will, destroy change by blowing it up, legislating against it, cannibalising it, formalising it and finally copying it. **I would have to be the least successful would-be-social-innovator of all time so no need to pay much attention to this section.** Though this section is crucial, nevertheless about the most successful group I have found in this regard have been the bush mechanics who stay under the radar. For me I have not found a single instance of where ‘speaking truth to power’ makes any positive difference.

These points are those that I rate at an efficaciousness level of at least 8 out of 10 in this regard:

1. Be **tactically within** and yet **strategically without** the System
2. Be accountable to the SQS for 90% of your work and cohere 10% strategically outside the SQS
3. **Beneath the SQS’s radar**
4. Be proficient with your hands at a status quo profession and use this for feeding 2 above
5. Use **counterpoint techne** e.g. guerrilla tactics cp. the SQS’s ‘high’ technique e.g. surveillance etc.
6. **Don’t be America (US):** Maintain your morals and Learn from the Resistance; French, Viet Cong and Mujahidin these groups of rabby raggy non-formal fighters

with a deep moral commitment manifest through deep HHH coherence helped bring the greatest military empires of their time to their knees

7. **Don't be the West** yet use our technology and the South's technology
8. Slowly **assemble a resistance** or affinity **group** of up to 7 folk of true praxisers, this will take a period of years – a brains or praxisers trust to prevent co-option, keep the pot boiling, act as mentors and critical friends to one another
9. **Praxis** in this regard is manifest as head heart and hands
10. Watch for, and seek, **displacement events** such as: displacement events, and triggeral positions, tipping points
11. **Parallel Process** and develop the new within or outside the old
12. **Placate then innovate** i.e. get what you want/can from the SQ saying studying doing what you have to jump through 'their' hoops then when you leave the room innovate as you had intended all along
13. **Drift and look for opportunities** – don't knock it it can work however the drift is often in the direction the SQ requires so it's always harder to row against the wind and tide, although today the SQ wind is in one direction and the VOP (Voice Of the People) is, in many ways, in the opposite direction
14. **Leverage** applying the principles of the financial economy to the real economy and leveraging substantial change from say a displacement event
15. **Zen option** – seek to be at the point of eternal return so that now is the moment of eternal reckoning where the past and future are brought to account, in this circumstance we 'know' what to do
16. **No tip** – knowledge and action are provisional so that no list can be exhaustive let alone a cook book – allow for the outlier, wildcard and local voice to be heard.

### *Social Innovation Process (SIP) – up-scaling the Bushy*

From the perspective of this eBook no two social change scenarios are the same and praxivists have to use their judgment in this regard in relation to which of the above Social Innovation Processes (SIP) they activate. My track record does not speak loudly or successfully to this vital task. What I can say is that in the past decade the world is changing and there is a huge and increasing gap between what the people know and want and what the politicians are saying. This to my mind will produce an overhang that will lead to a tipping point and providing parallel processing has been underway by say innovative exemplars beneath the Status Quo's radar then in a situation of social chaos they can be brought forward.

SIP is beyond the scope of this eBook it is thoroughly discussed in Wildman and Schwencke (2003) and eBook1 pg 275 Wildman (2008:275) in the section on 'Developing Our Innovative Community Economy'.

### *Agency and the reconstruction of the morphogenetic social*

Essentially individual human agency crucial for techne is constantly being submerged under bureaucratic imperium. Belief in the Artificer means re-establishing trust in individual human agency. Agency as expressed through the vernacular, the Volk, the Exemplar Projects of common people, often expressed in a savage manner. Agency in Pedagogy as expressed, I submit, by the Artificer. By doing this we can re-engage the periphery where change and innovation arise and displace the centre where control and conformity dominate. I submit that

only this urge, expressed in many visages, such as the Artificer, can bring us and our children and Gaia a sustainable, equitable and accessible and empowered future.

Indeed Bussey (2008:163) argues that rediscovery and reconstruction of the social so utterly critical for Pedagogy lies in our ability to ‘rediscover agency’. I argue that savage individual agency expressed as the Exemplar Project is the tuning device we need to impact our morphogenetic field.

### **Chirosophy – the Mudra as an expression of Sacred Hands**

In today’s world we find little if any link, in relation to hands, between the mundane and the sublime. This eBook argues otherwise and maintains that the Artificer’s praxis includes a range of mudras – symbolic hand gestures. From the laying on of hands, energy channelling by hands, holding a plane or drill, esoteric an exoteric measurement, sign language, Buddhist meditations, Steiner body language and so forth. Even fingers have esoteric significance e.g. left hand is lunar/feminine/receptive/creative. Right is solar/masculine/projective/implementive. For both hands thumb ~ spirit, index ~ water, second ~ earth, ring ~ fire, little ~ air.

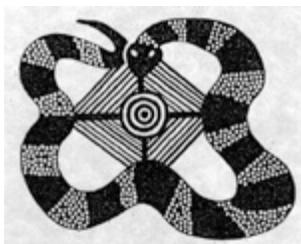
We have lost this link in the mundane world and in the exoteric world see no need to re-establish it. The Masons go some way in this direction with the symbols and origins of their movement clearly demonstrating the links to the trades; however that’s where it stops. No longer do Masons actually need to demonstrate chiro capability. Again this is lost it has slipped out of our post-modern age’s Zeitgeist.

Detailed discussion of these exoteric yet crucial aspect of the Artificer, and any links with Chiro Spirituality Shamanism, Demiurgic, Morphogenetic and Akashic Fields and entities such as Nemphilim and Annanuki are beyond the exoteric primary focus of this eBook, however it has been my hope that in establishing the Bush Mechanic’s and Artificers Guild with enough support this potential lost link could in part be recoverable or at least rediscoverable.

### ***Chiro~shaman – the Bushy as Shaman***

The guild lodge itself is rather like a womb within the Earth: dark, fecund, warm. We live again within Mother Earth. It is circular, and the participants sit in a circle often a grove. The circle is a powerful symbol, for in a circle everyone is equal. From a non-anthropocentric eco-shaman perspective one needs must also engage Deep Ecology as discussed briefly elsewhere in this eBook. Detailed of this broader topic in relation to our Chiro~Shaman is beyond the exoteric focus of this eBook and will be explored in a forthcoming publication. See in this regard Brandon-Evans (2004).

The doorway of the lodge/shed/grove faces/is entered from the East, the origin of new beginnings, the place where the sun begins his journey at sunrise each day. Two important markers map our journey in the guild-lodge. The:



(1) myth that forms the basis of the ceremony is the map of the

journey, which we all take to the centre of our worlds, our axis mundi.

(2) six directions and their virtues mark the interface of both; the inner/outer and earth/sky worlds we live in.

### ***The Seven Directions***

If we look to the Bushy as a form of Shaman then the shed becomes equivalent to the sacred grove of trees. Here the Australian Bush Mechanic becomes what may be called an ‘exoteric-chiro-shaman’. In relation to shamanism respects are paid to the following seven directions, part of a pagan cosmogenic cosmology (the origins of the universe and thus us and its operation w.r.t. laws, space, time causality and choice):

- **East: *Sky father***, air, purpose and direction, the sun, creative seed - *Poietai* (making shaping designing, fabricating), Air, Place of Illumination - ***Yang***.
    - (1) ‘D’esign viz. PIDIL
    - (2) An Australian Bush Mechanic mathos: Beneath radar, interfacing components, bespoke/custom(er) design and creations
    - (3) An Australian Aboriginal mythos: *Gwana the great wedge tail eagle*.
    - (4) Place of Illumination and Clarity. [North American Indian Thater-Braan (2001)]
  - **North: *Application to task***, earth, courage, strength and endurance, the vitality of youth, zest, Earth, The Place of Truth, The Winds of Change and Manifestation – *Arete* (natural excellence even virtue without being heroic). Moving into and through difficulty:
    - (1) Bushy as person (Shamanism/paganism)
    - (2) An Australian Bush Mechanic mathos: action/doing taking 8 times thinking.
    - (3) An Australian Aboriginal mythos: the *Goanna, the Kangaroo*
    - (4) The Place of Truth, Winds of Change and Manifestation [North American Indian Thater-Braan (2001)]
  - **West: *Earth mother***, water, moon, healing, humility, empathy and compassion, nurturance, repetition - *Acesis* (if at first you don’t succeed .....), Water, The Place of Transformation, The Void, The Place Where Answers Live - ***Yin***.
    - (1) Mutual Aid (Christianity)
    - (2) An Australian Bush Mechanic mathos: Customer focus, mutual aid, social holon
    - (3) An Aboriginal mythos: *Turramulli the rainbow serpent, Ungar the snake*
    - (4) Place of Transformation, the Void. [North American Indian Thater-Braan (2001)]
  - **South: *Wisdom in task***, fire, wisdom, truth, guidance and intuition – *Parrhesia* (truth). Our special connection with Nature (totem), experience and knowledge, which comes with age, Fire (purifying), Place of New Beginnings, Growth and Innocence.
    - (1) Global Problematique addressed with
    - (2) An Australian Bush Mechanic mathos: Experiential praxis heuristics, Artificer learning
    - (3) An Australian Aboriginal mythos: *The Dingo*.
    - (4) The Place of new wise beginnings [North American Indian Thater-Braan (2001)]
- Source:** these four directions draw from [http://www.sotems.com.au/sweat\\_lodge.htm](http://www.sotems.com.au/sweat_lodge.htm)

(Spirit of the Earth Medicine Society) and

<http://paganwiccan.about.com/od/wiccaandpaganismbasics/a/elements.htm>

- **Vertical: *Consciousness of and from task*** – Head Heart Heel and back – Consciousness and understanding linking sky king and mother earth (can be seen as implicit in the above) yet is included here to insist that the individual is a participatory part of the whole (I ∞ Cosmos).  
(4) Up Above – Down Below – as above so below – fractal [North American Indian Thater-Braan (2001)]
- **Inner ↔ Outer – *Inner ↔ Outer harmony in task***, while synthesising the above - *Phronesis*:  
(1) Elder, Inner ↔ Outer harmony  
(2) An Australian Bush Mechanic mathos: PIDIL, shed as grove/church, participatory consciousness  
(3) An Australian Aboriginal mythos: Dreaming – History as Future
- **Standpoint: *Actuality of task*** – bringing it all together in the here and now. *Prohairesis* (acting ahead wisely, of birthing, living, dying and return). Synthesising into living and breathing exemplars:  
(1) Sage – Exemplar inner and outer and in various consciousness's in the eternal now the point of eternal return, history as dreaming  
(2) An Australian Bush Mechanic mathos: Exemplar Project, synthesise  
(3) An Australian Aboriginal mythos: Living the Dreaming inc. Corroboree, walkabout  
(4) Here in the centre '∞' [North American Indian Thater-Braan (2001)]

## Conclusions

In this eBook I have sought to answer the twin questions: What then would an educational system based on Artificer Learning actually look like? And how would this be different to existing alternative pedagogies? Such discussions are predicated on an ontology whereby pedagogy and schools are seen as more than annexes of the economy. And one way of this 'more' is the Bush Mechanic.

This final piece remains somewhat partial and not wholly integrated nevertheless it does seek to respond to the above two questions. In this regard the reader will be subject to 'trail by Appendix'. For this I apologise however the topic is novel and each of these expands on a crucial aspect thereof from the main body of the piece.

It is hoped that this eBook as part of the Artificer Update Series can contribute to the substantive trailing of this learning system as part of the grand narratives of our time, e.g. Eco villages, Permaculture, Transition Towns and Power Down.

### Further and Future Research Issues based on the Bush Mechanic Pedagogy

Further Research Areas that emerge from the Bush Mechanic/Artificer Learning Approach (BM/ALA):

1. Tacit Knowledge: additional research is needed to build on the findings that experiential knowledge gained through the BM/ALA builds quality tacit knowledge which in turn leads to enhanced practical knowledge which can be documented as improved experience and performance
2. Research to determine if such Practical Knowledge/Intelligence is as distinct from general cognitive ability and personality as this series advocates
3. Further research is thus called for into the relationship among the various conceptualisations of intelligence. As the proliferation of these concepts continues, it will be important to determine whether social intelligence, emotional intelligence, and practical intelligence are distinct constructs or represent components of a common construct. And to see the links if any between intellectual knowledge, practical knowledge and tacit knowledge. See also Hedlund, J., J. Antonakis, and, R. Sternberg. (2002:24-25).
4. A further research area is indicated by a reservation I have with management tools in general and that is illustrated in the opinion of Jackson Grayson. In the early 1970's he was asked by the then President Nixon to set up the US prices regulation authority on the basis of his decades of management training, consulting and teaching. He made the definitive criticism of his field. How many management tools did he use to set this up in a few months?

None, not one tool that existed allowed him to make decisions in real time, could cope with inaccessible or nonexistent data, high levels of contingency, emotional resistance to change, palace or organisational politics, the use of power issues in making change or simplifications that invalidated the tool for this particular application.

Ultimately he found himself falling back on character, trust, ingenuity, DIY, in a walk your talk approach. These were best expressed in a co-operative group within a common intellectual understanding of the issues and a willingness to be accountable for decisions, those popular and unpopular and for those that don't work as well as those which may only just succeed. It may well be that the Bush Mechanic can provide a satisfactory management 'tool' for such 'pointy' chaotic, turbulent and fractal situations. [see <http://en.wikipedia.org/wiki/C. Jackson Grayson> ]

5. Application of BM/ALA Principles that is Artificer Processes to Curriculum Development in Primary School (as an extension of play based preschool curricula) and Tertiary (Social Science) need to be explored urgently. As the educational system stands this would offer a third 'androgological' path quite distinct from Pedagogy (Higher Ed and Voc Ed).
6. Exploration of the potential efficacy of application of the BM/ALA to areas and occupations requiring severe experiential components such as extreme sports, special services in the Military and DIY innovators
7. Research into the contribution that the BM/ALA Principles can make to what may be called 'From The Job Learning' as contrasted with 'On The Job Learning'. The latter today has been appropriated by Voc Ed/TAFE and is simply behaviourist pedagogy.
8. Research is needed as to how the BM/ALA experience leads to meta-cognitive heuristics that are crucial in arenas requiring severe experiential components. That is the transition from copying with movements to mimicking with understanding occurs
9. Further research into the application of the BM/ALA to enhance management and leadership efficacy need to be undertaken inc. case studies and exemplar projects and VV case projects and exemplar studies – walk you talk and talk your walk
10. Exploring the application of the BM/ALA to examine and better understand the development of expertise
11. Some research results lend support to the claim that success on academic and particularly non-academic problems depends on more than what is measured by conventional intelligence or ability tests. Further research is needed to see if the BM/ALA constellation can account for some of this differential. Hedlund, J., J. Antonakis, and, R. Sternberg. (2002:24).
12. Determining if the **BM/ALA** as a unique contribution to make to the resolution of so called '**wicked problems**' of nested, interlaced and interfaced holons such as peak oil, global population as well as the interfaced Economic and Environmental crises.
13. Exploration of the potential extent that **the Artificer approach to learning is part of longevity in traditions such as the Hunza** – I estimate that it is accountable for at least 20% of the tradition
14. Further research is called for in exploring the **Artificer Action Learning Heuristic** viz. how in this form of androgogy participants help themselves (a) to distinguish relevant from irrelevant information (selective encoding), (b) to integrate information according to rules of thumb – emergent heuristics (selective combination), (c) to relate

- the information to selected prior knowledge and/or experience (selective comparison), (d) integrate this interface into a custom action plan, and (e) to learn from this process in order to (f) mentor others and help them learn
15. Exploration of a deeper meaning of **Critical Literacy's** towards conscientisation and beyond to include Artificer Learning
  16. Significant further economic and ethnographic research is required into how to live with less much less how to recycle etc braided with **lessons from the Great Depression**. The hypothesis is that the Artificer is much better capable of coping with the vicissitudes of socio-economic life therein
  17. **Post- even Trans-colonial pedagogy, indigenous pedagogy and subaltern projects** from prospective and retrospective perspectives of the Sauvage Bush Mechanic/Artificer require much further attention and have only been touched on within this eBook
  18. **This will include DIY type research into incorporating radical uncertainty as a category in ones diversified superannuation portfolio** in ones Superannuation Plans and broadening their (uncertainty and superannuation) and superannuation) conceptualisation to include non monetary i.e. Real Economy aggregates
  19. **Indeed recent critical research on Pedagogy strongly supports the general thrust of these eBook series**. Indeed Smyth, Angus, Down, and McInerney (2008:130-140) list some 18 key criteria for the 'new curriculum' and at least 10 of these are addressed in the Artificer Learning approach as elaborated here in.
  20. **The Bushy in Chiro Ed can provide an alternative pedagogical path to Higher Ed and Vocational Ed**. Further this category can provide another research category for data collection and hypothesis formation rather than simply continue to accumulate data and research on the existing somewhat adversarial 'either or' Status Quo Pedagogical categories and then having researchers blast away at one another's argument in increasingly polemical ways.

## Potential Bush Mechanic Pedagogy (BMP) UTube episodes on the Bushy

(each basically me talking 5-10mts)

### The BMP Concept

1. [The concept – an overview \[Jan's article\]](#)

### Pedagogy Attributes

2. [Techne – Dexterity – 10,000hr rule \[Chapt 8, App D, Chapt 3\]](#)
3. [Sauvage \[Ch 8 section on Sauvage Techne\]- wildcrafting](#)
4. [Open source, P2P, COPraxis, distributed manufacturing \[Reprise 4 Chapt 1\]](#)
5. [Potlatch and the K-sere techne \[Chapt 8 - beginning\]](#)
6. [Dirigisme and Commercialisation \[Chapt 6\]](#)
7. [DIY↔DIO - Community Bushy \[CEDALC CD and YES\]](#)
8. [Hobby Science \[Chapt 6\]](#)
9. [Handkind, our archaic logic base and the importance of play \[App B Toolkind → Handkind\]](#)
10. [The hand \(27bones\) \[App D\]](#)
11. [The Indigenous Bushy \[Myth ↔ Math Diag and Ross\]](#)

12. The Bench [*Tabula ipsa loquitur* ~ *The bench speaks for itself/herself* (bench in Latin relates to the feminine; and opera means work – so *work-bench* becomes *opera-tabula*)

### **Pedagogy Impacts**

13. Demobilisation through Globalisation– exporting our children’s economic future

[*Indonesia – Aust wage rates and costs and GOW viii endnote + Gow Tsunami III: Physical Economy/ Manufacturing/ Long Hollowing*]

14. Bushy Footprint management [*endnote viii Gow*]

15. Remobilisation through Glocalisation – restoring our children’s economic future. [*as lib*]

16. Oikonomia, the bench and the bushy. Community economy cp. Financial economics

[*Ch 8 section: Community Economy Techne – economeque + Schwencke CD*]

### **Aspects of Chiro-Pedagogy**

17. Four Bushy Logic Base Attributes and the Bushy Morphogenetic field [*Ch 9*]

18. The Yin factor – too often ignored [*Reprise 10(H) Chapt 1*]

19. Hand Knowledge, and Head Knowledge, Chiro-pedagogy – Kids and Adults Learning [*App G: From Cognito-Pedagogy to nascent Chiro-Pedagogy*]

20. Adult Learning – Experiential Learning – Action Learning – Artificer Learning – Life Long Learning - Life Wide Learning – Life Wise Learning [*Chapt 2 – Learning Taxonomy, App F*]

21. Archaiopraxy and Praxepraxy [*App B Praxy’s section*]

22. Educational Actionistas compared [*Chapt 1*]

### **Examples**

23. Mates Rates - Beneath the Radar [*Ch 1- The Invisible Aspect of the Bushy*]

24. Volk Handwerker [*App F*]

25. Exemplars of the Great Australian Bushy [*2005 Bushy workshop ppt’s*]

26. Bespoke Trades [*Mark Tompson’s 1995 book*]

27. Bushy as Hunza [*section pg18 here*]

28. Hunza’s as Bushy’s

### **Tomorrows Bushy**

29. The Bushy and Futuring [*App B*]

30. The Last Great Depression [*Chapt 1: [Reprise 8] Lessons from the Depression – a case for Bushy Thrival*]

31. Peak Oil [*Reuse, Refocus, Relink-Religo, don’t Recycle – ad lib*]

32. Sheds and Benches ~ ‘The Bench’, Resiliency, Resistance, Transition reskilling and Innovation

33. The Bushy and the Evacuation/Export of Australias Physical Economic base

### **Philosophical Issues**

34. Noosphere and Physiosphere [*N∞P – N is valorised – thinking & doing – need to braid/dance – ad lib*]

35. Androgogy and Pedagogy – a reprise [*Appendix G*]

36. Bushy Lexicon [*App B*]

37. 6 Greek Words [Document as file]

38. Evaluating the Bushy – the Bushy Hall of Recognition [App F, Wildman, P. (2009). AUS10: Bush Mechanic/Artificer and Exemplar Project Criteria. Brisbane, Kalgrove Pty Ltd: 20pgs.]

39. Resource Website, Guild, Blog and Kiva explication [ <http://thebushy.wordpress.com/>, <http://thebushy.wordpress.com/>, <http://www.actionlearning.unitingchurch.org.au/>, <https://www.kiva.org/> ]

## Wither the Bushy?

40. The Bushy Today and Tomorrow? Dynasoar or Dinosaur [Chapt 1 Bright side of the Bushy Reprise 9]

41. Up the DUF - the Esoteric Bushy

[Wildman, P. (2009). AUS10: Bush Mechanic/Artificer and Exemplar Project Criteria. Brisbane, Kalgrove Pty Ltd: 20pgs.

Gaynor, D. (2002). 'Reality, Consciousness and Psychospiritual Transformation.' **Article:**

Wildman, P. (2006). *Artificer Learning through the Demiurgic Field (DUF) of Dreams* Brisbane, Prosperity Press: 20.

Wildman, P. and I. Miller. (2004, 2004). 'Artificer Learning through the Demiurgic Field (DUF) of Dreams.' from [http://creativity.chaosmagic.com/whats\\_new.html](http://creativity.chaosmagic.com/whats_new.html).

Wildman, P. and I. Miller (2006). 'Practicalising the DemiUrgic Field through Active Practical Wisdom - how the artificer seeks to transform the world.' *Journal of Chaos Philosophy Web Journal* [http://chaosophy.50megs.com/whats\\_new\\_2.html](http://chaosophy.50megs.com/whats_new_2.html): 15pgs.]

## Biggest Picture Bush Mechanic Research Issues

We need to develop an alternative meme for our Australian/Western culture that reifies the Bricoleur and the Sauvage process of Artificering of Hand Knowledge. In short we need to value 'handkind'. In turn this will mean the emergence of a 'chiro-pedagogy'.

## eBook Series Research Question

In retrospect the research question for these two eBook series and their supporting papers has been: 'What is an efficacious pedagogy?'

Clearly this pedagogy will be quite different though with some overlaps compared to the existing official pedagogy in mainstream education inc. schools, high schools, Vocational colleges and Universities. Also clearly it is not a one size fits all, unlike mainstream education, and further the question is in search of 'a' not 'The' pedagogy so this is one among others, an 'alternative

Pedagogy in this sense is a particular type of paradigm. And paradigms are fragments in search of unified understanding of a particular area in this case 'learning' and in the broader case the mysterium we find ourselves within, unknowingly even. Such fragments as holons are simultaneously self-sufficient yet partial indeed provisional encapsulations of the area of inquiry in this case 'learning', so that while striving for completeness paradigms, and thereby we their creators, also acknowledge our limitations.

In accordance with tradition in Action Research thesis the research question starts out as opaque and emerges fully developed towards the end of this decade's research work, I have left the final articulation of same to this final stage in writing the second eBook.

It is my contention that such an efficacious pedagogy will in essence have to go with the ‘grain of the brain’ (Appendix G) and that conventional pedagogy goes in effect in reverse thereof, in terms of the way humans learn, and evolutionary anthropology and cosmic development. In this regard I use the term ‘brain’ to include the organic and cognitive aspects of human mentation in the context of the brain writ large that is ‘thinking and doing’ through the cosmological paradigm that views the body simultaneously as part of the physiosphere (brain) (we are all ‘made of star stuff’ as Sagan so insightfully reflects) *as well as* the noosphere (mind) and again I argue that the human is not uniquely skin encased and that as a social animal our mentation both organic and cognitive is also social<sup>xxviii</sup>.

Such an approach positions the emergent pedagogy as a ‘sauvage’ counterpoint to for instance conventional pedagogy that derives from the valorisation of ‘and independent world created out of pure intelligence’ even a world of pure ideas even ideals even a Platonic world is for me the root cause of many of the present dilemmas we find our-selves confronting from Abu Gharib to global warming, from poverty to overpopulation and crime and environmental degradation by corporations empowered by the Governments we elect. I argue strongly that all of these conundrums have their foundation in the valorisation of the abstract independent of the grounded.

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<sup>xxviii</sup> Here we can envisage what is behind the physicality of the ‘star-stuff’ of which we are made here we see in the Hubble photos the dance of subtle and concrete energies in our wriggling universe. For instance a crucial part of terrestrial bio cycle is precipitation i.e. rain and a crucial part of rain is storms and a crucial part of storms is lightning and a crucial trigger for lightening is thought to be cosmic rays and a crucial cause of cosmic rays is a sup nova and a super nova is basically a star that exploded on the other side of our galaxy millions of years ago. So a storm that nourishes us today is directly linked to a gigantic cosmic event that occurred on the other side of our galaxy millions of years ago, a sort of **matrixularity** a counterpoint of singularity in a sense a DUF. Here we are linked to the rest of the universe as in the movie Contact. Possibly a matrixularity is a Yin experience.

**Singularity** to my mind, and as outlined below, comes in various guises suggests a: (1) Phase shift, (2) Change of gear, (3) Eureka moment, (4) Damascus experience, (5) DUF distillation (see following) and (6) Black hole. Possibly singularity is a Yang experience.

In a *physics sense* a singularity is ‘point of infinite mass or density of energy’. In an *energy sense* a singularity may be seen as a discrete phenomenon within an energy field a distillation there from e.g. man in the DUF. In an evolutionary sense singularity suggests memetic evolution predominates physical evolution, so singularity can mean a type of tipping point, an absorption point, a point of phase shift, game changing evolutionary or more correctly ‘memevolutionary’ emergence.

In a nutshell this can be called the Cosmic Egg of eternal return as in Vedic concepts of vast cosmic cycles each initiated and terminated by a cosmic singularity. In its genesis the singularity meant going back before space-time before space time foam into the beginnings of the universe – the ‘big bang’. Here the singularity creates a black hole surrounded by an ‘event horizon’ so that the principle of ‘cosmic censorship’ prevents us knowing of its physical existence as it is hidden from us by this horizon. In a **consciousness sense** one could posit a phase change say in the order of an ‘eureka moment’ and or a Damascus experience inc. near death experiences. In cosmology a black hole.

In this eBook I discuss the singularity in a *sociological sense* where by information singularity for mid this century. Sociologically, I suggest, this will present itself as essentially a noospheric phenomenon as a rate of change that increased until we can no longer perceive it i.e. the events are occurring so quickly that recognition takes longer than the emergence of the next event. Events are inside our response loop so to speak. Here everything goes quiet, no one can hear you scream and we approach the event horizon, so even our cosmos braids thinking (energies) and doing (star stuff) mobius like.

I must say that in all my 30plus years as a published author I have seldom, if ever, found such an 'elephant in the room' in that few if any serious authors today address or even surface this as a crucial issue in our future, for instance Kuhn (1996) (sees a paradigm as 'fully internalised intellectual culture a discourse absorbed by education and training' [referenced in Bronk (2009:268)]. Clearly in this regard the elephant in the very room where paradigms are being defined is that of the 'education and training' itself which Kuhn himself does not see. So we move forward accepting the existing form of pedagogy. I adduce this disturbing fact to suggest this latest life inquiry of mine (over the past decade of my life and even more so that the previous decade which was primarily devoted to Community Economy Development) will not receive much, if any positive air play let alone media attention let well alone any validation in mainstream academe.

## Appendix A: The Tao of Techne, Epistem and Technology

Historically it appears that techne and epistem have a strained relationship. At best and in summary one may say that it is necessary to do some substantial ‘straining’ to separate them. The relationship even in such historically crucial authors such as Plato and Aristotle is complex and often the terms often overlay one another. What may appear to us today even as dialectic of contrasting even oppositional terms that define and ‘distinctivise’ thinking and doing is not so in our source documents rather both seem to be reflections of the same ability, an ability that, in my opinion, is directly related to realising our potential as humans in eudemonia. Possibly in this ‘realisation’ we find Heidegger’s ‘being’.

### Xenophon’s blending of epistem and techne

**Xenophon's** only sustained discussions of *epistêmê* and *technê* are in two of his Socratic works, *Memorabilia* and *Oeconomicus*. The *Memorabilia* recounts conversations which Socrates held on a variety of topics; the *Oeconomicus* is a conversation largely devoted to one, i.e., the art of running a successful estate and household. In these works, knowledge is intimately tied to knowing how to do things, especially the more organised kind of knowing-how designated by *technê*. Here there is no distinction between *epistêmê* as theoretical knowledge and *technê* as mere craft or skill. Socrates explicitly identifies as *technai* such activities as playing the harp, general-ship, piloting a ship, cooking, medicine, managing an estate, smithing, and carpentry; by association with these *technai*, we can include house building, mathematics, astronomy, making money, flute playing, and painting. Without marking any difference, he also calls many of these activities *epistêmai*. Thus Xenophon and to an extent **Plato** do not make the Aristotelian substantive difference between theoretical instruction and learning by practice.

### Aristotle's separation of epistem and techne - a separation relevant today

For **Aristotle** epistem and techne are quite separate with *technê* as a disposition (*hexis*) that produces something by way of true reasoning; it is concerned with the bringing into existence (*peri genesin*) of things that could either exist or not. Nevertheless *techne* and *epistem* are equal virtues in his five virtues of thought: *technê*, *epistêmê*, *phronêsis*, *sophia*, and *nous*. Importantly he distinguishes *techne* from *praxis* (action). Aristotle contrasts the person of experience (*empeiria*) with someone who has *technê* or *epistêmê*. The former knows for instance that a particular disease, responds to a certain treatment. The person who has a *technê* however, goes beyond experience to a underlying understanding of how the two are connected, such that such a treatment in such and such a manner is a remedy for all individuals suffering this type of disease. This suggests to me a sense of local theory in that techne implies a build up from experience of understanding of underlying links and causations (still not general theory involving universal truth).

For Aristotle, the master craftsman (*technitês*) is wiser than the person of experience because he knows the cause, the reasons that things are to be done. The mere artisan (*cheirotechnês*) acts without this knowledge. Presumably the reason that the one with *technê* can teach is that he knows the cause and reason for what is done in his *technê*. So we can conclude that the person with *technê* is like the person with episteme (rationality

and theoretical cp. practical knowledge); both can make a universal judgment and both know the cause.

### Heidegger - *Techne* as a revealing 't'ruth

According to Heidegger - Truth is made up of many truths? And one of these truths is *techne*.

*Techne* genuinely reveals Truth, but it reveals only that aspect of Truth that necessarily needs to be uncovered in order to achieve its practical end. Thus, while *techne* reveals truth which is part of Truth, *techne*'s revelations are enframed in such a way that it reveals *a* truth instead of *the* Truth. Ultimately such enframed truths are partial and, so, indicate the possibility of humans being able to 'enter into a more original and revealing Truth'.

*Techne* as enframed truths may be seen as questioning processes that interrogate the end state of the world as it should be (truth through enframing points to ethics). Enframed bears some relationship to 'frame of reference', 'vantage point', 'perspective' and 'world view'. Thus the rise of modern science may be seen as the 'mechanical enframing of the world picture'. Nonetheless, Heidegger suggests, *techne*'s genuine tie is to 'T'ruth through this enframing questioning process of 't'ruths. For Heidegger, this process of questioning does not guarantee the act you choose as the basis for your judgment from these enframed 't'ruths will be ethical. Instead, it is the *process* itself of questioning needs to be by way of enframed truths, which forms the basis for judgment and subsequent *action* that *is* ethical.

So for Heidegger what is decisive in *techne* is not in making etc. but rather in revealing potential i.e. being. Heidegger has said something similar about the silversmith, who, through his *techne*, brings together the form and matter of the chalice within the idea of 'chaliceness' to reveal the chalice that has been 'on its way' through its 'potentia' into existence. Thus *techne* is a 'a mode of revealing' and he asks the question what then is this inner meaning of technology i.e. instrumental manufacturing and measuring? For him one of the key differences is that *techne* works with nature where as technology directly changes or 'challenges' nature. Such challenges are a direct result of our 'enframing' mindset which sees nature as a resource rather than our home.

Crucially he makes the point that in a sense *techne* precedes science, as the former produces the measuring tools to allow the second to move forward. Heidegger looks back to a moment in the history of the West before the onset of enframing, back again to ancient Greece, where the concept of 'techne' which, as we have seen, is the source of our word 'technology'. *Techne* however included both instrumentality *and* the fine arts, that is, *poiesis*. Heidegger imagines a classical Greece in which *techne* was not a separate function within society, but unifying force that brought together religious life, political life, and social life. The art of ancient Greek culture, according to Heidegger, expressed humanity's sense of connectedness with all Being. Art was a kind of 'piety', it was the outgrowth of humanity's care, of our 'stewardship' of all existence.

### *Techne* as Folk Technology

Truth for Heidegger then is the being revealed in this enframing. And essentially he sees two prime enframings (1) being as revealed by *techne* that is Berman's participatory

consciousness and (2) the dominant Western being as revealed by technology whereby nature is created as a standing reserve as a mere instrument of production. It is to this former enframing of participatory consciousness or folk technology or indigenous technology with which I strongly, though not exclusively, correlate *techne* in this e-book.

### **Towards Utopia - moral maxims as *techne***

*Techne* releases potential? For example I have heard it said by doing this exemplar project I have worked myself out! And thus *techne* is also concerned with being fully human?

Moral maxims as *techne*, viz. virtue as **Stoic** *techne* towards utopia/eudemonia?

*Techne* can be an instance of ‘right’ action and to an extent not VV?

Is not *techne* an expression of the art of life, a step towards eudemonia?

To search after truth by *techne* is a search for desired outcomes (*techne* = a means to an end = still instrumental), but also it is a human mental and practical process of getting done not only material and economically profitable products but also deeper understanding and ways of being human (now *techne* becomes substantive in moral philosophy terms i.e. more than ‘mere’ instrumentalism but also concerned with the end of being fully human).

Ellul equated technology with calculative, ‘rational’ techniques which dominate both culture and nature. For Ellul, technique transforms everything it touches into a machine.’

We may view ‘post-industrial’ society’ as run by ‘intellectual technology’ (which unlike *techne* which draws more from human judgment is now based on externalised mathematics and linguistics) which uses algorithms (decision rules), programming (software), models and simulations. Ellul (1964:10).

### **From Utopia to Enantiotopia to Heterotopia and on to Bushytopia and back**

In all instances the ALP approach does not seek to totalise pedagogy. In fact it is basically without voice today and so even to be heard a little would be a great leap forward. Nor does it aspire to a universal or totalising gaze. That is it is not utopian. Rather it seeks to be part of a heterotopia where various types of pedagogy, inc. standard pedagogy, are accessible to parents and students. Furthermore that parents and students (a little like happens in some countries with school and in Australia with child care) have a voucher broadly conceptualised to ‘spend’ or allocate to the pedagogy they choose.

Utopia as a concept an ideal is making a limited comeback from the days of postmodernism wherein grand narratives and totalising discourses were averred. Nowadays limited utopianism can be seen as a response to the ‘nihilism of our times’.

**Heterotopia**’s then are places of ‘otherness’, multiplicity, diversity and contestation of the dominant ‘topia. I would wish that **Bushytopia** could be considered a **eutopia** viz. one of these contesting heterotopia’s. Eutopia is a non perfect yet good utopia. Not contesting only in say a post modern sense but contesting in more a post post post modern sense of post post modernism wherein praxis is valorised such that text becomes action rather than vice versa. Indeed in my off moments I envisage the existence of what I call ‘**enantitopia**’ that is a **utopia** that achieves the opposite of what it, ostensibly sets out to i.e. a **dystopia**.

In terms of much post French Revolution from Fourier to Marx, utopian writing socio-economic organisation is central often with respect to allowing socially just expression of a human urge the 'will-to-work', with no distinction made between head-work and hand-work, with joy in work, *le travail attrayant*, being expressed through free worker associations. Polak (1973:120-125) With no more unemployment coupled with just distribution there will be no more poverty and thus wage slavery and alienation will cease and **sociotopia** will emerge.

**This eBook series** takes a different turn at 'labour' and 'utopia', while acknowledging its importance seeks to engage the issue of utopia from the process rather than destination perspective. Rather than interpret it as 'travail' we translate it as 'handwerker' and then link this to the macrohistorical indeed socio-anthropological emergence of the human through her chiro capabilities driving the increase in cranium size. So in effect this series is about a type of **chirotopia** or **technetopia** (with techne centre stage as Mirror of Our Nature) with man embedded in nature rather than as in **technitopia** with man framed by science from nature. Here, in the sense of much utopian writing inc. Marxism, we need a social revolution prior to economic equilibrium so to speak whereas today in the 'lord of the markets' approach to economics social equilibrium comes after economic revolution. Even more disturbing for me is the trend to GNR (Genetics, Nanotechnology, Robotics) where we change the genetic structure (a b) a genetic revolution prior to a social revolution again we fit man to a dying world rather than have an ecological revolution prior to our socio-economic one.

Rather than focus this concept on the overall design of the 'Macro-Social-System', or MSS for short, no doubt far beyond my capacity, I have chosen to focus it on what I see as the key determinant of this MSS i.e. pedagogy envisaging the emergence of what may be seen as hetero-chiro-pedagogies. Clearly may I suggest I have chosen for ongoing evolution through pedagogy rather than the finality through revolution of utopian designs? In short a process rather than a destination.

**Glocotopia** that is a series of local utopias, a huge challenge for utopian thought in that are utopias totalising are they global (glocal)? Do they, and if so how do they, allow for the local for the Bushy for Bushytopia or Bushytopias? Bushytopia is posited here as a parallel alternative to our Western status quo society of today it is not, and is never, meant to replace the Status Quo nor is it meant to totalise other potential 'topias. IN this sense Glocotopia is more a heterogeneous **metatopia** that includes a diversity of utopian species inc. bushy-topia. Here we are not prescribing a single ideal a single ideal of 'man' rather 'man's', though with inter and intra comparison and accountability of and between utopias i.e. we are not advocating a **heterotopia** or even a **monotopia** where you can eat babies.

We must be ever vigilant for the dystopias masquerading as utopias amongst us such as say a Nazi eugenic dystopia. Unity and self-sacrifice even for noble ends can generate an 'us and them/other' perspective even a hate for 'the other'. As Talmon (1952:4) says 'empiricism is the ally of freedom and the doctrinaire spirit is the friend of totalitarianism' (here I posit empiricism to mean a multiplicity of disparate bottom up evidence based practical efforts at improving our lot i.e. more than simple fact/value, objective/subjective

differentials of Cartesian rationalistic dualism). Indeed ‘the good’ can accommodate difference.

Thus these pedagogies would need to be legislatively separated and only brought together at the report to Parliament level as anything else would lead to diversity being put through the industrial age washing machine planet conformity, homogenisation and centralisation of an essentially competitive economically rationalist and globalised pedagogy that we have now. Pedagogical diversity HAS to be legislated – the future of Gaia and our children demand nothing less. See also Peters, M. and J. Freeman-Moir, (eds). (2006:7-9). In this eBook hetrotopia is used more in the alternative futures scenarios that are real and allow a site for contestation of the Status Quo. This is a slightly different emphasis on the Foucaultian original theme of a simultaneous mythic and real contestation of the space in which we live. And real in the sense of the exemplar projects being a concrete expression of practical journey’s of hope.

From the perspective of Bushytopia, if I may, the parts determine the whole not the whole trumping the identity of the parts. Detailed discussion of these ‘interfaces ethics and accountabilities’ are beyond the scope of this eBook.

### *Macrotechnics and Macrotechnecs*

Mumford calls the invisible structure which includes all the political and economic, military, bureaucratic and royal components that make the immense work-output and grand designs of collective social organization the megamachine i.e. its technical equipment ‘megatechnics’, I would suggest the word ‘macrotechnics’ as in the sense of ‘macrohistory’ as equivalent. This dialectically surfaces the relationship of ‘macrotechnecs’ or ‘macrotechnics’.

Historically the problem has been to turn a random collection of human beings...into a mechanized group that could be manipulated at command. The secret of achieving this was the Roman Decurion a bureaucracy with unitised pieces (groups of 10 soldiers) that could be moved en-unit to where required. Thus such mechanical control was to have a single mind with a well-defined aim at the head of the organization, and a method of passing messages to the smallest unit. Thus all forms of social regimentation, limiting the actions and movements of human beings to their bare mechanical elements, belong to the physiology, if not to the mechanics, of the machine age i.e. to technology.

Technology then becomes an expression of external domination: by means of technological constructs (machines) nature's powers and materials become disciplined to produce cultural. i.e. economic achievements. The social rules are constructs designed to serve internal domination: they structure the individual in such a way that (s)he is required to fit into the social context and performs constructively within it, if not he has no option but to be forcibly removed to ‘prison’.

### *Macrotechnics expressed through the Cognology*

Here we must needs be cautions and in this regard I state categorically I am not advocating inverting the dominance of thinking over doing. Rather to rebalance the two. This is the task we may set Macrotechnecs What I see in technological society is that through the

Industrial Revolution doing was replaced largely by machine to the point now where it may be argued that all the goods and services can be produced with 20% of the present workforce Gorz (1980). So thinking which in its scientific mode produced technology (congealed science) which absorbed much artisan type doing and has left the social type doing high and dry so to speak and thus became if I may a sort of cognoscenti technology a *cognology*.

Then the cognoscenti simulacra like floating noosphere like around the developed world, now absorbs reality, or what is valorised in reality, it absorbs our doing. And in doing this it turns inward and devours itself a sort of *cognology black hole* out of which comes virtuality a hyperised reality that then is reabsorbed into our reality our actions in technosphere gamings such as computer games and virtuality where one now wears the computer say to play tennis etc. So instead of the virtual/thinking leading to real/doing an **Aristotelian Ontological Process (AOP)** the process has been reversed and real/doing is now absorbed into the virtual/thinking – a **Singularity Ontological Process (SOP)**. This transition may be said to have occurred around 2005 in my view (in Australia/the West possibly earlier in few years leading up to 2005), such a **SOP then retroacts to deter any passage to action.**

We have to posit, and validate nothing short of a third ontological option not AOP or SOP but **one that does not deter action** i.e. one that validates action/reality/doing without pejoratising cognition/virtuality/thinking. This then is the ontology of Macrotechnecs of the embodied Artificer or **EOP (Embodied Ontological Process)** which is also the **Evolutionary Ontological Process (EvOP)** or proximately the **Indigenous Ontological Process (IOP)** or proximately the **Participatory Ontological Process (POP)** (as in participatory consciousness) or proximately the **Aboriginality Ontological Process (AOP)** or **Sauvage Ontological Process (SOP)** or proximately the *Integral Ontological Process (IOP)* with its **Integral Emergence Manifesto (IEM)** (see the following section and Appendix B below). [EOP≡EvOP≡IOP≡POP≡AOP≡SOP≡IOP≡IEM].

*Situating the Bushy in Vernadsky Phase Space and Lemarkian evolutionary time*  
This series maintains that we are  **tied through the Vernadsky phase space to Lemarkian and Darwinian evolutionary time.** Vernadsky's thesis is summarised in his usage of the word *biosphere*, for he thought that life is innate in every particle of the planet and, by extension, in the cosmos at large. It was not something added to or arising from the interaction of Earth's physical components. Published in Russian in 1926, *The Biosphere* has waited until 1998 for an English translation and commentary by modern geologists, geophysicists, and geochemists. Lemark developed the theory of evolution prior to Darwin and had a grand synthesis of co-operation what may be called today 'autopoiesis'.

Vernadsky, the great Russian scientist Vladimir Ivanovich Vernadsky 1863-1945, demonstrated that the known universe is divided into three, interacting 'phase spaces', from the lowest to the highest, in terms of physical power, complexity, and consciousness. They are: the inorganic, or pre-biotic Lithosphere/Physiosphere/Geosphere; the Biosphere (including all the products of living processes, such as the oceans and the atmosphere); and

the Noösphere (the ideational realm of ideas and their constructs such as theories, processes, plans, poetry, buildings etc.). Vernadsky (1926) and Teilhard de Chardin (1938).

Cyberspace, virtuality inc. Web 2 and New Life as say the **COP (Cyberspace Ontological Process)** may be seen as the antithesis of ‘artificeospheric’ then may be seen as extensions and deepening’s of this third noospheric Vernadsky phase space. Yet this is a phase space not separate in Vernadsky’s original intent from the previous two that is each builds on the other as in a polypod (rock building with rocks resting on one another and that will fall apart, through the effect of gravity if rotated horizontally) these three are not separate mutually exclusive entities say as a train and a bus may be. Thus the Vernadsky Phase Space may be seen in effect a phased EOP. In this sense Vernadsky may be seen as a proximate though not total counterpoint to cyberspace/cybernetics/COP type arguments for a discrete disengaged and disembodied reality – virtuality.

*In this silent world, all conversation is typed. To enter it, one forsakes both body and place and becomes a thing of text (words) alone. You can see what your neighbours are saying (or recently said), but not what either they or their physical surroundings look like. Town meetings are continuous and discussions rage on everything from sexual kinks to depreciation schedules.*

*Whether by one telephonic tendril or millions, they are all connected to one another. Collectively, they form what their inhabitants call the Net. It extends across that immense region of electron states, microwaves, magnetic fields, light pulses and thought which sci-fi writer William Gibson named Cyberspace.*

—John Perry Barlow, ‘Crime and Puzzlement,’ 06-08-1990

*Cyberspace - A consensual hallucination experienced daily by billions of legitimate operators.* William Gibson in his 1984 novel Neuromancer.

Overlap does occur by way which in deference to Vernadsky and de Chardin and his ‘emergent evolution’ and Gibson we recognise the vitality and ‘reality’ of the noosphere which in extension we argue is ‘hmand made’.

Yet a third standpoint is the **Gaian Ontological Process (GOP)** of James Lovelock (1979) which embodies beliefs that we are all anchored in the biosphere and that the earth may be seen as a ‘single organism’. This can in some instances devalue the diversity and dimensions of the EOP and us the genus homo and even ignore or even deny the ‘reality’ of the noosphere. And in some deep ecology instances the noosphere can be seen as the ‘enemy’. Overlap does however occur in relation to autopoiesis and chaos theory embedded in non-linear and multilayer causation.

### **Introducing the ChiroSphere**

Likewise the **Artificeosphere (ArOP)** or **ChiroSphere Ontological Process (COP)** or proximately the **Embodied Ontological Process (EOP)** or proximately the **Indigenous Ontological Process (IOP)** viz. the **Aboriginal Ontological Process (AbOP)**, or proximately the **Integral Ontological Process (IOP)** may be seen as a proximate counterpoint to both, as EOP is engaged yet simultaneously validating of the noosphere and

its constructs, so one can argue, please, that we now have a trinity of **COP | GOP | EOP** respectively so **COP≠GOP≠EOP**. Each of these has its own logic base or epistemology. In the next section we seek to explore some aspects of these Logic Bases. This series strongly argues for the EOP while acknowledging that the three are overlapping and thus not mutually exclusive. I would maintain that these are the three primary world views of the West embedded in our Modernity Zeitgeist. NB: the ‘C’hiro-sphere recognises the need to express chiro as hand integrated with head and heart through consciousness. This is what I call ‘Depth Chiro’.

**Table 4a: Comparison of the Three World Views\* ~ Cogno | Bio | Chiro**

Attributes↓ \ Worldview→	COP	GOP	EOP**
<b>Ontological Focus</b>	Noocentric	Biocentric**	Chirocentric
<b>Epistemological Anchor</b>	Theory/Concepts/Ideas	Green is Go(o)d	Hand made project
<b>Epistemology</b>	Cognology	Biology	Chirology
<b>Strength</b>	Virtuality	Protection of ‘N’ature	Deep message of what it is to be human social anthro/ evolution
<b>Weakness</b>	Doing	Governance	Shardistic today only ridiculed remanents remain
<b>Anthropo-locus</b>	Humans are becoming virtual	Humans are toxic and separate to the ‘green meme’	Humans are of the physiospheric world just as plants & animals are
<b>Logic Base</b>	Cyber	Bio	Chiro
<b>Human example</b>	Nerd	Indigine	Sauvage
<b>Occupational example</b>	Computer game designer	Environmental scientist	Artificer
<b>Logic Base Anchor</b>	<b>Newtonian</b> – positivist empiricist science	<b>Darwinian</b>	Indigenous Apprentice <b>Kropotkinian; Lemarkian</b>
<b>Emo analogues</b>	Thinking	Feeling	Doing

**Source:** P Wildman 08-2009. GOP – Gaian Ontological Process; COP Chiro OP; EOP Embodied OP,

\* (excludes the Romantic Worldview – Romantic in the Troubadoureaan sense of the 1780-1830’s period with some homologues into the present) Worldviews=Consciousness+Unconsciousness=Zeitgeist EOP/Chiro or engaged suggests ‘the hand’ is the link between the three worldviews Kropotkin (1902), Lemark (1802).

\*\***Biocentrism** (from Greek: βίος, *bio*, ‘life’; & κέντρον, *kentron*, ‘centre’) is a term for biocentric thought, which ‘centres’ philosophically on life, nature, or biology. The scientific theory of *biocentrism*, posits that life creates the universe rather than being part of the universe. In this view, current theories of the physical world do not work, & can never be made to work, until they fully account for life & consciousness. In ecology & political thought, *Biocentrism* is a point of view which centres on the value of non-human species, ecosystems, & processes in nature; as opposed to anthropocentrism which centres on the value of humans.

**Table 4b: Comparison of the Four Logic Bases\* ~ Bio | Chiro | Emo | Cogno**

Logic Base - Language	Nature - Bio	Bushy - Chiro	Romanticism - Emo	Modernity - Cogno
Analysis-Synthesis	Evolution	EP - synthesis	Ballad	Worker Ant
Civic Space	Copetition	Social Holon	Troubadour	Military Industrial Complex
Big Picture	Gaia	Global Problematique	Relationship	Telescope Silos
Learning/Pedagogy	Natural Selection	Action Learning	Eros	Education
<b>Additional considerations</b>				
Zeitgeist	Sauvage	Techne	Muse	Technique
Occupation	Indigine	Artificer	Artisan	Machinist
Social position	Tribal member	Chiro: Volk Handwerker	Artiste	Cog
Logic Base	Biological	Chirological	Emological	Cognological

**Source:** P Wildman 07-2010 **NB:** Romanticism, nearly eclipsed in Modernity (e.g. in terms of Volk vernacular presence Romanticism scores, in my opinion, 1 out of 10 where as Modernity scores 9, Bio scores 4 and Bushy 3). It is included here as a referent and to attempt to illustrate that Zeitgeist alternatives are ever present even if unvalourised and largely invisible and even ultimately illegal.

### ***A: What then is the Macrotechnic logic base of the Cognology? A: Cyberspace***

What then was the logic base of the pre 2000 thinking/doing? Clearly it was technological cp. say technelological thus the logic base of social and physical technology so that the tax base for instance is based on what may be called the ‘value added’ (viz. labour and capital), namely the entropic logic based whereby throughput of resources extracted from nature (depletion), through the economy, are delivered back to nature (pollution). For instance this needs to be changed from the logic/tax tax base of *value added (labour and capital)* to *that to which value is added*.

Such a process externalises internal costs as well as raises revenue more equitably. It also prices the scarce, but previously unpriced, contribution of nature. This will require the enclosing of the remaining commons of private natural capital in public trusts, and price it, while freeing from private enclosure and prices the public commonwealth of knowledge and information— the logic base of technology stop treats the scarce (Nature) as if it were non-scarce, and the non-scarce (Economic wants) as if it were scarce. So in short the logic base is trenchantly entropic and cannibalises all forms of neg entropy in the globe and prices these at basically zero but valorises the entropic processes of consumption highly.

In this regard I argue strongly that **the logic base of the Cognology is Cyberspace** as an ontological operating system – **COP as above – Cyberspace Ontological Process.**

### ***Techne emergent within Technic induced collapse***

In this sense technecs may be seen as hermeneutical heuristic technology as, for instance, contrasted with technics which may be seen as analytical algorithmic technology. Technology enframes an autocatalytic environment for itself which simultaneously produces through extirpation a fragmentation and decomposition through what may be described as an disseverment of existing technology.

### ***Techne as Volk Autocatalysis***

Autocatalysis (which, I posit we see in the Bush Mechanic as Volk Autocatalysis) however occurs at the edge of chaos and when coupled with the overall social destabilisation effect of its self induced increasing rates of change can produce a cultural collapse or implosion.

It may well be in these circumstances i.e. in the immediate pre-fall chaos that techne may provide some providence. Consequently techne may be seen not as archaic but rather as emergent and contributory and catalytic to local self or auto organisation.

*Techne as a neg-entropy tool for conviviality and autopoiesis*

Technique cp. Technique can be seen as one aspect of increasing sustainable complexity in society though enhancing social neg-entropy that is reducing social dissipation. Techne through repair and reuse also can also be seen as a form of low-entropy harvesting. And in the broader bush mechanic/shed/yarns from the bench approach techne can be seen as a foundational tool for conviviality. Illich (1973). Also see Wildman (2003) for an extensive discussion of entropy and the socio-economic process.

Human beings are dissipative structures in that we require energy (low entropy fuel/food) to live. Nonetheless society a construct of us humans is by derivation a dissipative structure and indeed as Greer (2008:75) argues Western society is caught in the jaws of the dilemma increasing social complexity and decreasing returns to same. All this is in the context of a society with little trust and a rampant globalised market ideology.

## Appendix B: Bush Mechanic/Chiro Pedagogy/Techne Lexicon

The compilation of these two eBooks has required an arduous search for, and sometimes invention of, words generative of what may be seen as the emergent subaltern world of the artificer. Words within yet separate to the status quo, that combine a certain, syllabic richness, ‘handual’ dexterity, experiential involvement and social inclusion.

**Adolescence** – nowadays increasingly and tragically pathologised, medicated and regulated it can be argued that the tear away nature of the process is related genetically to the survival of the human species wherein it became vital some 60,000BP when the total human global population fell to around 20 or so breeding pairs that risk taking by adolescents esp. males became a vital component in species survival. Intriguingly in decade of adolescence say between 10 and 20 approximately 15 of brain cells reconfigure themselves each year depending primarily on experience and underwritten by the chemical bathing of the brain in testosterone or oestrogen.

As such adolescents are ‘crazy by design’ and have a deep inner urge to think beyond their own contextual and personal limitations and they wish to do things for themselves, they wish to go over the mountain by themselves and find what’s there, how to use it, **who they are** and how it can help back home. They are driven to explore the world. Adolescence then is **not** a chemically induced delirium from which youngsters need to be saved even in this sense ‘protected from themselves’ a form of bon vita (love of/zest for life) castration. **Clearly the evidence adduced in this eBook, and to my mind, adolescents are budding socially aware bricoleurs, and while this is recognised in traditional tribal societies, in late-modernity avenues for same have been all but eliminated from, and by, Pedagogy.** This is a major failure of our school system. See also Abbott and MacTaggart (2010:33, 54).

**Ahead - Ahand** – getting ahead – here we see the dominance of logos in futures whereas getting ‘ahand’ means getting help in the here and now – proactive would come closest to ahead in this deixis. Using ones hands giving someone a-hand/help.

**All-Of-One-Hand** – the artificer counterpart of modernity’s ‘all-of-one-mind’ and the esoteric ‘all-of-one-heart’ position. It means solidarity towards a common collectively chosen goal expressed in the physiospheric sphere i.e. a community working bee.

**Armed-To-The-Teeth** – this harks back to the importance of teeth in primates the more teeth showing the madder the primate was and arms as conflated with weapons – deep macrohistorical term

**Arms race** - see the above explanation – says it all

**Artificer**

*Artificer 1 - Subset of Fraud - deception by a thief and trickster - a criminal actor*

One of the three definitions of fraud in the Concise Oxford Dictionary and most other's is: a dishonest person who causes deception by use of an artificer or tricks an act of criminal deception. Thus we see just how far the Zeitgeist has moved from seeing artifice as a key part of the centre of meaning in society say in the middle ages esp. in the cathedral towns to its ejection as criminal by the 20<sup>th</sup> century.

### *Artificer 2 - Exoteric - Bricoleur and Bush Mechanic*

Artificer 1– also known as Bricoleur, Bush Mechanic, Jack of All Trades and Master of Some, the artificer is the focus of this series and the past decade of my life studies.

Evidencing the four key grounded research characteristics of 1 exemplar project, 2 social holon, 3 global problematique and 4 action learning as well as incorporating the following ancient aspects:

### *Artificer 3 - Exoteric - Related Ancient Greek Words:*

**Akrasia** – **Artificer Word 1** or moral incontinence - the incapacity to act on what one thinks is right. eg, the smoker who keeps on smoking despite knowing the potential harm. Then of course, we have the word 'hypocrisy' and 'corruption' where we knowingly, habitually, act against what we espouse as right. Somaticly Then we have paralytic diseases like dystrophy and sclerosis that, at worst, where mentation and mobility functions are disconnected. Cp. **Vitiate** 65 to corrupt morally – to debase; to destroy or drastically reduce the effectiveness of something, or make it invalid, to cause something to become defective (**word 6**) though not directly a Greek word is nevertheless most appropos - Vitiate comes from Latin vitiare, from vitium, fault. It is related to vice (a moral failing or fault), which comes from vitium via French.

**Parrhesia** – (Bushie contexted) – **Artificer word 2** - i.e. the discourse of 'Truth' whereby frank and open discourse with fellow citizens of the project within the bushie which the bushie manifests in his or her masterpiece i.e. his axis actionist ethicus – a form of braiding of truth / project / person where quality of consciousness is conceptualised as embodiment eg. in the masterpiece or master's thesis. Truth then ceases to be an arrangement of (back of the brain) factual evidence and rather becomes an expression of common sense through (front of the brain) embodied discourse about the topic by involved citizens manifest in their individual and collective exemplar projects. This is a character of the Artificer.

**Phronesis** – **Artificer word 3** - wise action, practical wisdom (Bushie actually!!) SPIRIT, STRENGTH & SKILL: For Aristotle, phronesis is 'an adult power of insight into practical matters, cultivated and developed by experience - a kind of sophia, gnosis, or inherent wisdom. Quality is based on inherent qualities inherent of the beholder not only the beholder, so to speak. It is the root of being oneself, well-being, thriving, fortitude, health. It is also the root of justice in a healthy state.

**Prohairesis** – choosing ahead wisely – (Bushie extended to acting ahead wisely) – **Artificer word 4**. Prohairesis – commitment to a course of action based on an intention that demonstrates the character (ethos) and thus the moral stature of a given persona as linked into the and expressed through the future. pg 281, in the Nicomachean Ethics Bk 3 chapt 2-3 prohairesis means the ability (even virtue) writ large of our moral character as depicted in its ability to 'ethical choice and action' that stretches out into the future, taking or choosing ahead with the future (a) as a guide &/or (b) as an intentional volitional destination, thus integrating intention and extension i.e. intended destination/outcome and external capabilities necessary to achieve this (link to Phronesis).

**Poietal** knowledge - producing – forming and making and therefore designing - i.e.artificing **Artificer word 5** Reference is made here to a related, yet separate, concept of (auto)poiesis i.e. of self regulation and self creation. The Greek verb poieo (I make or create), gave rise to 3 words: poietis (the one who creates – inventor/innovator/bush mechanic), poiesis (the act of creation), and poiema (the thing created). From these we get three English words: poet (the creator), poesy (the creation) and poem (the created). A poet is therefore one who creates, and poetry is what the poet creates. The underlying concept of the poet as maker or creator is not uncommon. For example, in Anglo-Saxon a poet is a scop (shaper or maker) and in Scots makar. So in ancient Anglo-Saxon an artificer is a scopper and in Galic makar.

**Arete** **Artificer Word 6** is an ancient Greek concept for the 'spirit of virtue,' natural excellence without show or being heroic, a usually flawed archetype. Even if it cannot be taught, perhaps it can be cultivated from within, building character. This was the basis of the Human Potential Movement. Arete shares a root with the term 'aristocrat,' meaning naturally noble – links to Phronesis and embodies integrity of the beholder and beholder, spirit, strength & skill: For Aristotle, arête/phronesis is 'an adult power of insight into practical matters, cultivated and developed by experience -- a

kind of sophia, gnosis, or inherent wisdom. Quality is based on inherent qualities. It is the root of being oneself, well-being, thriving, fortitude, health. It is also the root of justice in a healthy state.

**Artificer 4 – Esoteric - Artificers as arcane leaders**, here an acharya (eastern cleric) is to ‘lead by being’ not only ‘lead by thinking’ or ‘lead by doing’. An acharya even guru is one who learns by being in her experiments with ‘t’ruth. So here the Exemplar Project is one such experiment. Further in many computer games artificers share a role with bards, clerics, shamans, and warlords. There are several as I see it subsidiary ‘learning to’s’ that nest in ‘learning to be’ they include for instance: ‘learn to do’, ‘learn to know’, ‘learn to praxis’, ‘learning to live together’, ‘learning to help’ and so forth. I suggest these entire ancillary ‘learning to’s’ contain an element of ‘learning to do’.

In ancient terms (20,000 to 8000BP – prior to agriculture as we know it) yang intelligences were not as pronounced as today. For example the ‘3R’s’ of pedagogy, can be seen to represent ‘yang’ or male intelligence whereas music, art and community viz. ‘yin’ intelligence is all but obliterated today 2500BP to present. Thus the importance of the exemplar project in Artificer Learning pedagogy, one that is simultaneously ancient and modern, yin and yang, left and right brained respectively. Here the head (yang), heart (yin) is expressed through the hand (ying), ☯, or even Exemplar Project.

I posit that the EP can be considered a neg-entropic statement of qualitative conscious action which is thus dynamic and iterative and may be considered a ‘unified physical (physiospheric - space-time) and mental (noospheric - imagination and theory) continuum or field. This eBook contends that such a continuum may be called the Demiurgic Field or DUF it is the field from which genuine human creativity which integrates the physical and mental in new physical entities and theories such as for instance Exemplar Projects and  $E=MC^2$ . I recognise this is a big ask, and this section is speculative only, in that an EP is intensely entropic in itself. I argue however that in its application if the project enhances neo-humanist synergy (synergy between humans and Gaia) then on balance it may be considered in some regard neg-entropic. Essentially then neg-entropy locates around the creative power of human endeavour. This then is the difference between quantitative growth in numbers or statistical measurement of an economy and qualitative growth of the sustainable expression of human endeavour as suggested above.

**Artificer 5 – Esoteric - Demiurge** – maker and mender of the worlds – operates in what is called here the DUF the Demiurgic (manifesting) Field as a second tier god in esoteric ontologies as one who manifests the universe of manifest form. Not quite the same as demigod who is a deified mortal, also seen in the Latin saying *deus ex machina* – god in/of/from the machine and the ideological mechanical panacea.

**Artificer 6 – Exoteric – a crucial component for a new world** – in my view along with key items such as green power, permaculture, population constraint and glocal governance; the Artificer/Actionista/Bricoleur/Bush Mechanic is also a key component. Indeed chapter headings in a 2010 edition of the Whole Earth Catalogue.

**Artificer 7 – Exoteric – Artificer Learning** – AL involves integrating: (1) the lived life of the student (prior understandings) with the learning tasks i.e. harness the linguistic, cultural and experiential ‘capital’ of the student into the overall pedagogical process, (2)

factual knowledge with conceptual and interpretive frameworks, (3) active control and the learning process (curriculum), (4) critical skills and proactivity, with (5) analytical and synthetical opportunities and challenges and (6) the learner in a related participative Community Of Praxis within the context of an Exemplar Project that responds in a concrete way to the challenge to ‘demonstrated today ways that we can live together in order to offer a better future for our children and Gaia’. Here the EP may be seen as a form of ‘identity text’ whereby student’s creative work is valorised and carried out in the curriculum space orchestrated by the overarching chiro-pedagogy.

This then in its broadest remit locates AL, or Chiro Learning, as a subset of Experiential Learning and Action Learning as a subset thereof and AL as, in turn, a subset thereof. I would argue that AL/CL is significantly similar and different to EL for instance to warrant at least a semi separate categorisation.

**Artifice or Avarice** – Artifice in the sense of the deep bushy V’s greed of current economic systems avarice. To me this is the question of our times.

**Artifiseer** – a person who explains wisdom (seer) through her exemplar projects/artifice

**Artifista1** – see Educational Actionista

**Artifista2** – here I propose this as the name of a community currency that is based on effort in the real economy not financial economy and that is not centrally rationed but rather created at the point of exchange. Further the Artifista will be free of interest and exchanges recorded in the locality where the transaction occurred. I estimate such a local finance/local economy that could be supported by such a currency could be around 30,000. So that exchange rates between local currencies or a meta-regional currency could be used for larger urban areas.

**Biomental quadrinity and Survival-ship**– the Artificer integrates thinking, doing, feeling and intending (discerning, earning, concerning, yearning). Incidentally survival-ship is a combination of art and craft using all four of these but principally lensing the others through action.

**Bush Mechanic – our disowned future** – Here our excellence can be our fatal flaw, said the Greek writer Homer. What we excel at becomes our downfall. And we do not see this because we are busy focusing on efficiency and our strategic plans. Inayatullah (2008:5). It is the self disowned, the potential future pushed away, that can offer so much, is right under our ‘noses’ yet we won’t see it. It is my contention that the Artificer/Bush Mechanic is one such ‘disowned’ future. In the artificer I argue we can see our reflexive self.

**Bush Mechanic – word tree/mind map/paradigm descriptor**

In these eBook’s BM is used as an associative term to represent a family or organic cluster of related meanings and nuances in a word tree/mind map. It is not used as what maybe called a ‘splodge word’ that can mean anything to anyone such as the word ‘value’ or ‘ethics’. Here the term may be seen as a Wittgensteinian ‘family resemblance’ sense, almost as a Kuhnian ‘natural family’ paradigm sense. Readers Note: there is no intention to argue for paradigm

exclusiveness rather paradigm pluralism is advocated with the BM paradigm using many skills and products from modernity for instance from the paradigm of conventional pedagogy.

**Bush Mechanic - Volk Farmer – Homo Habilis Artificericus** – as argued in this eBook the term is used in its sense of **Volk Handwerker** (VH). Research for this series shows that the four principles of the VH esp. interface/interlocking of component/subsystems, imagination, the whole being more than the sum of the parts, individual and collective intentionality and agency, emulation as desire to excel yet while going forward with your colleagues, mimesis as learning through mentoring and the primacy of practical problems and challenges grounded in the lived life of the bushy/artificer/artifista/actionista VH so to speak and the crucial focus on local actions – a posteriori, rather than universal models of human behaviour or templates for action (cookie cutter actions) – a priori. Here the whole is dynamic and more than the sum of the parts.

It is my contention that that the Bush Mechanic, or even if I may *Homo Habilis Artificericus*, represents a hybrid manifesting hybrid vigour yet also a natural lineage blending *Homo Economicus* and *Homo Romanticus*. As while the Bush Mechanic is highly technical and experiential even empirical (s)he is also outside conventional utility calculations and does not operate as a profit maximiser rather a wisdom maximiser and recognised the joined up nature of all that is the link between his or her exemplar project and the global problematique and social holon.

Further and intriguingly *Homo Economicus* cannot operate in environments of radical uncertainty and needs a stable predictable one. Notably the future is just such a radically 720degree uncertain environment. Forward thinking requires imagination and innovation adaptation and co-operation, not mere ratiocination of utility; all these are completely outside his/her domain and yet are inherently part of *Homo Romanticus*'s modus operandi.

NB: These attributes fit more readily under the 'romantic rubric' of the European political economists and philosophers of the late 16<sup>th</sup> Century and the 17<sup>th</sup> Century, of meta-rational holonistic 'organicism' rather than narrowly defined rational atomistic 'mechanism' e.g. Adam Smith (1723-1790), Marshall (Alfred 1842-1924) and Coleridge (Samuel Taylor 1772-1834), later we see this 'spirit' in Schumpeter's (Joseph 1883-1950) creative destruction. This form of 'post rational naivete' is to my mind deeply rational as rationality now does not exclude human mentation in its broadest sense of including imagination, tacit knowledge, lateral connections, emotion and creativity. The link of course is chiro based that is 'the hand' as in Volk Handwerker, which both measures and caresses.

See also Bronk (2009) and Alexander (2005) and Alexander, Ishikawa, and Silverstein. (1997). I would argue that the word 'chereode' is also closely affiliated with organicism. For instance describes paths of decision within what Christopher Alexander has called, configuration space, and his term for what he notes that Stuart Kaufmann calls 'fitness landscape.' Configuration space is a conceptual landscape which contains all possible outcomes and points of decision within the design of a structure or the growth of an organism or system. Because so very few of the possible outcomes will be good ones, paths to the infinitesimally rare possible and good solutions must be followed to get good results. Evolution appears to follow these paths or, 'Chreodes' automatically in the biological world. By Alexander's theory, because conscious human design decisions do not need to follow these chreodes, conscious human design can lead to mixed results. Therefore, he proposes that discovering ways to allow architecture to follow these paths is the best way to get good results in the built environment. Alexander sees his theories of 'The Fundamental Process,' 'structure preserving transformations'.

**Mechanical** in the sense that mechanical principles and empirical scientific laws are invoked and incorporated into the design of various project/tools etc. not as metaphors for life itself, and thus **Organic** in the sense of these principles, and others inc. interface, social holon, global problematique and action learning linking to the bigger picture. An organic version of *bush mechanic* would be *volk-farmer*. This has, however, too strong a rural/provincial flavour for me to use it in this series.

### **Bush Mechanic - Mnemonics**

#### **(1) BUSH**

**B**old

**U**ndercover

**S**ystematic

**H**exis (active disposition)

#### **MECHANIC**

**M**oving

**E**conomics to

**C**estui que-esque (Prop Right: an ancient form of vesting without vestee ownership e.g. family trust)

**H**olons that

**A**nalogue

**N**ature's

**I**nnovations and

**C**oncealments

#### **(2) BUSH**

**B**ecoming

**U**sufruct (Prop Right: using without harming or owning)

**S**ustainable

**H**olons

#### **MECHANIC**

**M**aking

**E**conomic

**C**ommunity

**H**armony

**A**ligned

**N**ested &

**I**nterfaced

**C**onstructively

#### **(3) BUSH**

**B**uilding

**U**seful &

**S**ustainable

**H**omes

## MECHANIC

Making

Ecologically

Complete

Holonically (Holontology)

Aligned

Nested

Innovatory

Constructions

**Capacitation** – to make capable, to constellate and activate as in innovent, creativity, imagination, applies to individuals, groups and organisations. Also implies an initiation prior to the next stage of action as in the change undergone by sperm in the female reproductive tract that enables them to penetrate and fertilize an egg/ovum. Capacitation I suggest has a homologue in Jung's constellation of an archetype.

**Chess-Boxing** – indeed an upfront example of combining thinking and doing. Before the competition or 'fight', motivational music is played and the two men punch the air. And then, in one of the most unlikely boxing moves to date, they sit down at a chess table. The men are given ear plugs and headphones to help them concentrate. For four minutes, they will attempt to outwit each other on the board. Then the gloves are on and it is three minutes of boxing. The sport was invented by a Dutchman in 2003, and there are now 150 professional chess boxers worldwide. Some people look away during the boxing, and some people look away during the chess, depending on your background. Competitors alternate between chess and boxing until one of them either calls checkmate or knocks the other one out: whichever comes first.

**Chiro** – (Sohail) the hand – see also *techne* the hand at work and play so to speak. I argue throughout these eBooks that 'the hand made man – humhandity or humanuality or homo dexterous or chiroman or homo chirous' so that we are really homo chiro-sapiens and we never stopped being homo habilis. Tragically through macro history that is over the past 3 millennia or so especially since Socrates and Plato have pejoratised manual work the artisan the artificer the bush mechanic the doer as manual labour not as volk handwerker expressing what it is to be, in this regard, truly human and this then allowed us to valorise thinking over doing, abstract thought, heavens rim discussion with the gods over cooking dinner.

**Depth Chiro** then includes two prime attributes [A] the two gazes, (1) horizontal and external (exoteric) and (2) vertical and internal (esoteric) and [B] integration of the hand the head and the heart expressed as consciousness through the hand, i.e. an integration of the faculties viz. (1) physical, (2) emotional, (3) intellectual expressed with dexterity through (4) consciousness.

The manual labourer, thus reduced and set up for lampooning as the fall guy, has become something to ridicule to the point where almost all Western and to a certain extent even in some Eastern spiritual paths this pejoratisation of the chiro is accepted and even underwritten, for instance shudra labourer yes but juggad labourer – worker artisan or

bricoleur no, intellectual not paraxial.

**Eastern:** (1) worker/shudra, (2) warrior/Ksatriya, (3) intellectual/vipra, and (4) merchant/vaeshya class (no (5) juggad and swadeshi class). NB: Swadeshi is a Gandhian/Hindi term meaning 'bread labour' i.e. a universal duty to engage in daily productive labour which counters the view that manual works/workers are inferior;<sup>xxix</sup>

**Western:** worker, tradesman, professional, intellectual, and merchant. I would argue that we need reincorporate two of our 'othered' histories (1) the artisan/artificer i.e. juggad and (2) the sauvage or wild history. See also: 'chiro', 'techne', 'sauvage', 'in natura', 'wild talent', 'juggading/bricoleuring/bush mechanicing', 'wild futures', 'futures', 'critical futures chiro-praxis', 'Gaian Wild/Sauvage Futures', 'hip hop wilding out', 'freestyle wilding/street/volk sports', 'wilding with dolphins/wolves/bears' 'desert wilding', brain wilding with drugs or discipline', 'rewilding (let the forest regrow in the park)'.

**In terms of this eBook** 'chiro-wilding' – let the hands speak, start thinking with your hands and so forth, sections in this eBook and also discussed in several sources and broadly in several places for instance pages 266, 271, 273, 276, 289 in Inayatullah, Bussey, Milojevic (2006), and Alexander (2005). Examples as at Q2, 2010 include Footrot Flats a New Zealand cartoon series and various junkyard wars/dogs type TV programs where teams compete to fashion a vehicle to jump cars or boat to go around a short course from junkyard wreckage.

If I may posit the following Gaia is 'wild' is 'sauvage' and as we consume at the rate of three planets we consume Gaia we consume our 'wild selves' our 'sauvage selves i.e. our souls while our spirit escapes into abstract virtuality.

**Chiro-wilding:** In modernity wilding/sauvageness is seen as defiling and wild and savage and is banned and one could argue that violence is the only remaining pressure valve left for wilding energy in our culture however brain wilding though hyper-abstract cognitive activity to the exclusion of physiological activity viz. the 'couch potato' computer gamer who in his or her 20's ends up with back problems as is the case with my 28 yr old step son and my grandson who at 5 had his own global team playing cogs of war with his wireless

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<sup>xxix</sup> In Gandhian terms swadeshi nests in the 'service or dharma economy' of his village republics based on the his interpretation of the Hindic 'sarvodaya' (uplift for all while maintaining balance, harmony and stability) which contains the following five elements: (1) Self-realisation; (2) ahimsa (non harm), (3) satagraha simultaneous linking of (1) & (2), (4) swaraj (self rule of nation, community and self), (5) swadeshi (bread-labour). In my view this comes closest to, and extends, the/my western concept of an Artificer Society or Deep Volk Culture. Haigh (2008:243-5), also called sattvi meaning serene and harmonious attitude lifestyle. NB: the Hidi acharya/ minister has to walk her talk and praxis sattvi which contains sarvodaya (uplift for all education for conscious raising). Gandhi's equivalent of conscientisation is 'nai talim' active learning that is doing to learn and he uses this approach primarily in the rural areas with extremely low rates of literacy. So learning came second doing came first.

**NB1: Nai Talim** is a spiritual principle which states that knowledge and work are not separate. Holistic, or should I say, wholistic education in this sense, in my interpretation, requires: Head, Heart, Hand, Soul and Spirit learning's and for me (PW) the way into this the prima mobile is Hand.

**NB2:** also called Vedanta philosophy – Gandhi and others are seen as **Neo-Vedanta** Philosophers (NVP) was originally a word used in Hindu philosophy as a synonym for that part of the ancient Veda texts known also as the Upanishads.

**NB3: NVP and ESD may be seen as homologous** though the former predating the latter by many millennia.

**NB4:** Detailed discussion of esoteric Hindic schema are beyond the scope of this eBook

headpiece on a life size 4.5mtr web connected computer data projector screen under my house almost a virtual wilding cave as he jumped around quickly followed by his on screen mega-military avatar with his face/head on it, and led his 6 payers who were scattered around the world all male all older than him and most were adults.

He was the captain as he got the results through his quick reactions and wild or savage approach – direct and uncomplicated by adulthood. **This wilding is valorised yet the wilding of the indigenous of the artificer is ‘othered’ it is legalised out, it is rendered ‘voiceless’.** It is this ‘other’ wilding that this eBook series argues we need desperately and disparately. Indeed he couldn’t ride a bike or understand hardly anything about the chiro-physiospheric world however I have set up a covert learning process.....

For instance see the discussion on *paideia* below and even the most appro pos Eastern path Neohumanism does not have an artisan class only manual workers. This for me is the unwritten tragedy of the West, and East and why I seek to put forward humble stumble efforts such as this. IN short we have our ‘rejected self’ it is nothing other than ‘our othered chiro-self’. In short we have ‘othered’ the hand and made us who we are (from a mundane exoteric secular sense). Thus we reject that aspect of our humanity which made us who we are – how we emerged. We have stopped evolution through concrete dexterity and switched on evolution by abstraction thus virtuality.

**Chiroactivity** – focus on hand dexterity – **chirology** – hand language in its broadest exoteric sense

**Chirophile** – a lover of hands; one who practices with ones hands e.g. a chiropractor; aroused by hands; writing by long hand. Chiro-philosophy – hand cp. head philosophy, Tallis (2003:viii&13), a chirophile is a would-be chiro-philosopher.

**Cognology** - thinking which in its scientific mode produced technology (congealed science) which absorbed much artisan type doing and has left the social type doing high and dry so to speak and thus became if I may a sort of cognoscenti technology a *cognology*.

**Contingency** – in a deeply uncertain (contingent) world we layer our deeply uncertain social systems. Chaos theory tells us that uncertainty is inherent in nature yet we insist on continuing with systems of governance that require bureaucracies (hierarchies with regimentation) where as Nature uses autopoiesis (self organisation from the bottom up using basic algorithms) and tribes use basic heuristics to achieve the same end). Further or scientific and social systems of inquiry often require linear sequential conceptions of causation. An understanding of causation is vital for an expression of agency. Consider for instance Global Economics or Global Warming or Global Waring none of these are susceptible uniquely to linear sequential causation yet LSC is singly the intervention modality of choice.

Here contingency is what I call 720degreeC contingency in that there is uncertainty above one (socially re governance and regulation) and around one (in the associated systems one needs to establish say an Exemplar Project) and below one (in the environmental world we

cannot exist without as well as the epistemic and ontological basis of our knowledge and social systems).

Importantly there is also a vital relationship between epistemic contingency and moral contingency viz. I know this to be true but is it the 'right' thing/EP to do? Furthermore there is contingency in the fields of science, morality and sensibility – does it feel right? How do I know when this feeling is 'authentic'? As an aside here as one piles up these contingencies one realises that the world is unfathomable and that to move to an EP is either grand folly or high hubris and maybe both. This is where one touches on the mystery of existence and one approaches the esoteric bushy as discussed elsewhere in this series.

Clearly the Bush Mechanic/Artificer has to operate within these Highly Contingent (HC) worlds (HC1 – Physiospheric World, HC2 – Social World, and of course her Exemplar Project is thus by derivation triply contingent as it also has to 'do its design job' HC3, and in some important regards be morally defensible HC4, and 'feel' right HC5). So in this sense having an EP that works say even in ¾ers of its intentions will be a most remarkable achievement. And furthermore there will be some regions of contingency that will be unknowable and themselves dependent on what moral or epistemic stand one takes.

**Power and Violence and Compulsion in Society** – One such rationale, oft used for compulsion in schools, is by the utilitarian JS Mill (1863) *'the only purpose for which power can be rightfully exercised over any member of a civilised community against his will is to prevent harm to others His own good either physical or moral is not a sufficient warrant'*. Abbott and MacTaggart (2010:142-143). Pedagogy is a crucial component of the formation of the 'Social'. Yet neocon social polices effectively 'endeaden' democracy and governance by criminalising social problems such as homelessness and prioritise control and prison over social empowerment. Indeed De Ruyter (2006:170) argues that *to choose the democratic ideal for society is wholly to reject the conception of pedagogy/education as an instrument of compulsion and rule.*

Government itself is now discounted as a means of addressing the multitude of socio-economic problems confronting our society today. Zero tolerance polices link the public schools to the prison system and substitute education and, remediation, amelioration and compassion for mandatory intolerance in a culture of regulation and punishment. Here the distinction between the school and the prison has become blurred. Thus we see that as a result Government bears little or no obligation for the collective future of our young people other than to induct them into the world of zero tolerance in the context of regulation and punishment. Giroux (2006:48-49).

### **Power and Violence and Compulsion in Schools**

Power is, I argue, exercised in our schools not a *power with* facilitative modality but predominantly in a *power over* dominating modality, such that over 90% of pedagogical interactions are thus mediated. It should be noted that there is a set subset relationship between compulsory education and compulsory schooling, consequently one can have the former without the latter in that school may be only one option to discharge the remit of compulsory education e.g. home schooling, workplace schooling. Here we speak of

compulsory education in a school somewhat a conflation however the two are so interwoven that in 95% of the instances of the practical implications of pedagogy today in our western culture they are pragmatically, if not philosophically, largely inseparable.

Here we come to compulsion in schools i.e. within school grounds and its authority structures and compulsion of school that is the compulsion used in forcing compliance and attendance inc. income management, parent discipline and jailing etc., and I would argue compulsion for schools as we see even in third world countries their eagerness to establish schooling systems based on the now tragically dated and discredited British Industrial Education Model. It can be argued that such compulsion is a form of violence which in turn maybe seen as a lack of trust, appropriation of the truth, betrayal of integrity and public trust and integrity, chicanery and the destruction of hope which I submit feed into compulsion and bullying – forced compulsion.

As we can see from De Ruyter above compulsion in Pedagogy and democracy in Society are mutually exclusive. Further De Ruyter (2006:174) refers to utopian theorist Aldous Huxley who maintains that '*the rise of fascism was only possible because of the compulsory education of all* (in Germany), a compulsory education that is characterised by compulsion and obedience. Since children learn to obey their teachers, they are (pre-)trained to obey leaders later' (and, may I add, torture 'the others' at Abu Gharib) (PW). I suggest compulsion nests with these analogues and within the holon of violence. And thus at the very foundation of the educational system is the violence of compulsion and the exemplification of power over and the preparation of children to serve the machine of the corporate state not to develop their own potential.

#### Where have all the flowers gone?

The flip side of this issue is, and one may well ask, how and where is trust, integrity, participation, accountability, mutual aid, violation, agency and hope 'taught' or demonstrated or practiced or embodied in our school system/pedagogy? Answer only in the few remaining folk spaces such as the playground and to an extent by a handful of teachers, and some families. These skills/flowers so crucial to an efficacious democracy and active citizenry are nowhere to be seen – absence speaks louder than words.

For me learners should be encouraged to reflect critically on the rationale for their detention, apprehend their common interests in view of the global predicament thereby establishing curriculum priorities related thereto, and develop normative responses and action projects to the priority challenges they see confronting us, while discharging this responsibility through a number of 'school' options. This is an education system that engages the global problematic.

Furthermore the human rights claimed by us as adults and parents is denied to our 'children' thus demonstrating our implicit belief that children, as an homogenous class/caste, are somehow less than human, immature, even an inferior class, and in some respects slaves were regarded by Aristotle. This notion of immaturity though can also be seen as a landmark dividing the territories of power and powerlessness'.

## *Compulsion, Bullying & Conformism (CBC) cp. Co-operation, Democracy & Creativity (CDC)*

Compulsion, Bullying and Conformism a form of violence (CBC=VI) are as they say ‘birds of a feather’. [VII then is outright physical violence]. As a guesstimate I place the figure of VI at round 90% of interactions in a school cp. 10% volitionally based Co-operation, Democratic and Creative (CDC=CI). Moreover CVBC is the background frame of reference for all school relationships vertical and horizontal (except lateral as in school buddies). [PW guesstimate 04-1020 for Australian Schools – social interactions outside the market]. School bullies are simply, to my mind, have imbibed this VI meme, embraced it and expressed it as only they can i.e. on a personal level. I would put the VI meme in terms of causation of schoolyard bullying at about 60% i.e. nearly 2/3rds<sup>xxx</sup>.

Critically though, I strongly side with Freire by stating categorically that ‘direction’ from the mentor/learning coach is NOT compulsion as above. Expertise and techne is a lifelong challenge and the longer one pays attention to this detail both mundane and sublime both local and global the more one realises that one too, even the master, and is the student. Direction in both instruction and curriculum is NOT authoritarianism nor is it compulsion. For instance the student can be involved with the mentor in creating, designing and implementing her own project brief, curriculum and assessment and ultimately even the pedagogical institution itself.

In this instance I take some issue with the likes of Bourdieu and Illich who claim that all education is violence. I would state that all status quo pedagogical education is violence but that pedagogy of its nature is neither authoritarian nor violent. See Matheson (2008:273).

*A Dozen Types of Compulsion in Status Quo Pedagogy in Schools* - Compulsion in Six types of Compulsion inherent in Status Quo Pedagogy Schools – JS Mill then justifies breaking this guideline for children I his classic separation of kids, and adults learning as per: ‘*there are certain primary elements and means of knowledge, which it is in the highest degree desirable that all human beings born into the community should acquire during childhood ... It is therefore an allowable exercise of government, to impose on parents the legal obligation of giving elementary instruction to children*’. Mochelle (2001:200). This statement pre-requires the separation of kids and adults viz. pedagogy and androgogy and this is a contested area as discussed elsewhere in this series. For Foucault (1979:136) the school, hospital and police all took from the army in post enlightenment France. And all aimed at controlling/ correcting the body and directing the mind in one- as so much modern bureaucracy does.

For my mind I can only see the differential in experience as the key descriptor so to speak between the two especially once differentials based on power are removed from pedagogy.

**Compulsory Pedagogy** includes: Compulsory:

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<sup>xxxxxx</sup> Generally around 15 types of violence are articulated (all arising from inequitable use of authoritarian power over, rather than collegiate power with) including personal and collective violence’s such as: (1) Fear, Intimidation (**bullying**), (2) Verbal, (3) Physical, (4) Emotional, (5) Social, (6) Economic, (7) Sexual, (8) Controlling Behaviours (**compulsion**) and I (PW) would argue (9) **procrustean conformism** the antonym of agency, while some sources add: (10) separation, (11) cultural, (female circumcision and rape marriage), (12) financial, (13) job and (14) spiritual violence’s. See: (accessed 04-2010)

<http://www.nqdvrs.org.au/Types%20of%20Violence.htm> & <http://www.gov.nf.ca/VPI/types/index.html> .

- (1) **Participation** in education
- (3) **Education** as in curriculum
- (4) **Curriculum** as in National conformity to a one size fits all schools and students approach
- (5) **Schooling** as in logistical attendance at a physical school
- (6) **Immersion** in the State
- (7) **Immersion** in the schools tacit and explicit systems of power, marginalisation and valourisation in turn these systems are identical homologues of those in operation in the broader society
- (8) **Alienation** from ones lived life
- (9) **Extrication of the Volk** from the working class (post structural symbolic violence)
- (10) **Elimination of creativity** in higher and vocational ed through instrumental curricula
- (11) the violence of **modernity's othering**, this is for me the deeper pedagogical violence, which is based on an implicit belief on the superiority of enlightenment reasoning and the imperative to release 'others' from the bonds of 'pre-enlightenment' – often this 'emancipative' release is violent and turns into 'sacrificial release for the others and the Americans killed in action - so to speak Smith (2006:73),

And Further forms of compulsion:

- (12) **Subliminal compulsion** – endemic in Western culture, media and society inc. computer games and social regulation and international relations that demonstrates vertically and horizontally every day in every way that violence and regulation IS the way forward the way out of social predicaments, seldom if ever genuine engagement, never citizen empowerment, not futures oriented. The homologue for this in pedagogy is the power mediation of formal relationships in schools for instance I estimate that 90% of same are compulsion oriented
- (13) **Hegemonic compulsion** – (while hegemony acts through active consent, compulsion acts through forced consent) this is in line with Gramsci (1971) and his view that Pedagogy is the struggle by the status quo to obtain the subordinated masses hegemonic consent to the existing social order, so that these compulsions combine in the terrain of every day lived life as part of the active pedagogical process to legitimate the interests of authority and the ruling elite.
- (15) **Compulsion by Implicit exclusion** - I would if I may go further and argue that there is compulsion in what is silenced that is out of the silences we see what discourses are implicitly compulsorily excluded by its negative valorisation. Here we have democracy, critical citizenship and creativity and of course these figure in the Artificer and similar pedagogies.

**NB: (15) Direction is not necessarily compulsion yet compulsion is direction** – here in set theory direction is a larger circle than compulsion which is a circle within the direction circle. Taking Freire's views in comparison to Gramsci's views we have the need to recognise expertise and depth experience in any learning experience. Here I argue for a two way linking between the student and her mentor/teacher i.e. a dialogic rather than a didactic approach to knowledge formation. And in this process some form of direction and challenge is warranted and indeed necessary.

**NB:** (11) and (12) requires a dynamic balance – always a site of disputation never a fixed ex-cathedra outcome – always a dialectic – which produces insights into the sites and types of power that can and do determine the outcome almost always in favour of the Status Quo. Further we needs must accept that any pedagogy anticipates ideologically a certain social arrangement/system/society that is a certain even utopia. IN this sense pedagogy can be seen to invert, somewhat, the Marxian view of ideology as pejorative into potentially something more positive.

Nowhere is a justification for such forced detention centre attendance provided no rationale other than JS Mill's mid 1850's justification noted above.

At least to some extent one may say that student on student violence we see emergent today is oppressed on oppressed violence.

*Sociodicy and the Curriculum of Compulsion* - sociodicy may be seen as:

- (a) The vindication and justification of society; formed by analogy with *theodicy* – vindication and justification of God
- (b) Justification of the process whereby pedagogy to fulfils its function of legitimating the cultural heritage and, through it, the established order. Thus in a bourgeois utopian sense it is understandable that basically all academics and indeed their academe have in national, anonymous competition, to be extended to measurement techniques which have in their favour all the outward signs of scientificity inc. objectivity, non mutuality and neutrality
- (c) Nothing would better serve this function of *sociodicy* than formally 'irreproachable' tests which could claim to measure, at a given point in time, the subjects' aptitude to occupy vocational positions, while forgetting that this aptitude, however early it is tested, is the product of socially qualified family environments, teaching and learning, such that the most predictive measurements are precisely the least neutral ones socially
- (d) Indeed we may posit a new word 'pedagogicy' – vindication of pedagogy.

In fact, nothing less than the neo-liberal 'protection of the elites' and their protection against the 'revolt of the masses' can be read between the lines of these standardised and uniform tests which present themselves as equalitarian and progressive which, nevertheless remain the privileged tool of sociocracy via metricated and indeed medicated meritocracy:

One conceivable consequence of today's greater reliance on tested ability as a criterion for the assignment of educational or occupational status is, a more rigid class structure based on ability. The contribution of inheritance to ability and the extensive use of objective selection tests may reinscribe the position of the individual born to parents of low socio-economic status. The fact that individuals tend to choose marriage partners from the same social stratum makes it likely that over time it will become more, rather than less, difficult for an individual to improve his social position over that of his parents with such unidirectional metricated tests.

And when these impacts are described as 'demoralising', it can be argued that vein that such a system of selection would inevitably have such an impact on the members of the 'lower classes', who, like the 'Deltas' in *Brave New World*, are obliged to acknowledge that they are the lowest of the low, the untouchables, and happy to be so. One reason is that they/we over-

estimate the capacity of tests to grasp actual natural abilities is that they/we under-estimate the ability of the School to monopolise accreditation which is then valorised and authenticated within the status quo reward structure. [based on

<http://www.ask.com/bar?q=sociodicy&page=1&qsrc=2893&dm=all&ab=0&u=http%3A%2F%2Fwww.angelfire.com%2Fca%2Fsanmateoissues%2Fsocdic%2Fsociodic.html&sg=w5Qbxlj0sVkv5Nq3WejHiyRAE60apICltaE0Of3pZM%3D&tsp=1268357837092> ]

The controlled control standardised bourgeois curriculum is a privileged instrument of the University which in turn is a privileged instrument of bourgeois sociodicy that confers on the elite the supreme privilege of not seeing themselves as privileged and convinces us the disinherited that they owe their school and social destiny to our lack of gifts or merits in relation to this curriculum, because in matters culture m, absolute dispossession excludes awareness of being disposed as based on a Bourdieuan post structuralist approach. See Matheson (2008:272-274).

*Democratisation of school use* – democratising the use of public infrastructure in all a ‘public pedagogy’ a polyversity even of unity in eco-diversity: Pedagogy, Androgogy, Community Learning and Use, Market Days, Before School, After School, Pre School care, space for student practicum’s and projects, local history, arts and crafts display and sales, local theatre, music, drama and voice of the voiceless, ethnographic vignettes on local issues e.g. closure of a manufacturing plant, local stream pollution etc., deskilling, School Council auspiced outside School Gate Projects aimed at supporting marginalised groups into the learning context. In all instances the subject student community member participates as an actor not as a consumer. Also see Mayo (2004). NB: this is distinct to democratisation of the process of school that is pedagogy in action, discussed elsewhere in this eBook.

*The UN Rights of the Child Convention of (1989)* - This convention complements the Universal Declaration’s’ on Human Rights (1948) and Human Responsibilities (1997) viz. the Rights of the Child Convention in Article’s 12, 13, 14, 15 clearly state that the child shall not be detained against its will, while Article (29) stipulates education to be on an individual child development basis. Articles 28(a) and (e) however counterpoint this with endorsement of compulsory school attendance for primary school and measure to attract attendance at high school. Page (2000:4).

Intriguingly as much can be told about Pedagogy’s real intent by **what it doesn’t do** i.e. what voices are silenced in that if something is compulsory to do then its counterpoint it is compulsory not to do it. For instance: (1) democracy, (2) curriculum participation, (3) governance participation, (4) involvement of parents other than in utilitarian and instrumental tasks of fund raising and working bees, (5) ethics, (6) cooperation and group work, (7) Glocal focus – the focus remains Nation State and (8) hands on education. This is 160 years ago. Rights of the child considerations, human rights and civil liberties all cry out

*Pedagogical Enantiodromia* - In these regards I am reminded of Isaiah Berlin’s words about how ones natural development could be suppressed by being compelled to suffer ‘the dogmatic pronouncements of an elite of self-appointed arbiters’. Bronk (2006:150), Berlin (1990:224). I put the proposition that schools as systems that have been developed by

reformers in centuries past for laudable rationales of inclusion, socialisation and interclass occupational movement which were originally intended to restructure society now are used by that selfsame society to maintain the very social order they were originally set up to restructure. In short schools and pedagogy in general has become enantiodromiac viz. achieving the opposite of what one originally set out to achieve.

**Craftivity** – creativity directed through craft as in volk handwerker - applied imagination.

**Craft/iness, Sm/art/er, Artific/ial** – all analogues of chiro-pedagogy

**Creative** – actively creative i.e. creative in the physiosphere – also see imagination its homologue primarily in the noosphere. Craftivity, Innovention, Imagination all coalesce in my view to produce what Schumpeter (1943) calls ‘creative destruction’, especially at the periphery where the vast majority of change originates. And the next step is that the creative spark is often ‘a result of striking of intuition upon the flint-stone of tacit skills’. Bronk (1009:208).

**Deus ex Machina** – ‘g’od in/of/from the machine/made by our hands (cp. DUF in this piece) and helps explain consumption as ‘shopping therapy’ via. the Romantic Ethic whereby the consumer becomes imbued with ‘ever casting his or her dreams forward in time and attaching them to particular objects of desire in order to obtain/buy, i.e. seeing them as ‘obtainium’, a bit of god that is a bit of the spirit of ‘deus ex machina’. Bronk (2009:209, 212). Further it may be argued that So if there were a more generally accurate way of translating deus ex machina into English, it would be ‘God from our hands’ or ‘God that we make’, implying that the device of said God is entirely artificial or conceived by man. Also: The Latin phrase *deus ex machina* comes to English usage from Horace's *Ars Poetica*, where he instructs poets that they must never resort to a god from the machine to solve their plots. He is referring to the conventions of Greek tragedy, where a crane (mekhane) was used to lower actors playing a God or Gods onto the stage. The machine referred to in the phrase could be either the crane employed in the task, a direct translation from the Greek *God from the machine* (‘ὁ πὸ μηχανῆς θεός,’ apò mēkhanĕ s theós), or *the riser that brought a god up from a trap door*. Although this phrase is somewhat diluted in transliteration as earlier in history, the phrase *God from the machine* implies the old use of mechanical manipulation, i.e. *to be made with one's hands*. [See: [http://en.wikipedia.org/wiki/Deus\\_ex\\_machina](http://en.wikipedia.org/wiki/Deus_ex_machina) 03-2009]

**‘The Dreaming’, ‘The Market’ and ‘The Bushy’**. Modernity is represent-able by the market and indeed it dominates our culture. Sutton (2009:67) argues the Dreaming (ancient mytho-cosmology common to many indigenous cultures e.g. the Australian Aboriginals) and The Market are mutually exclusive. And I agree. The dreaming comes from an ancient Palaeolithic culture diverse with literally hundreds of discrete languages and cultures basically all semi-nomadic with NFA (No Fixed Address) and economic practices of demands sharing, mutual aid and general rejection of accumulation Potlatch like.

Separately I would like to suggest in some ways the exemplar project is solidified or concretised dreaming. An experience I had during the building of my EP refers: a contractor visiting the site where we were building the boat was quite effusive and said to the bushy ‘Don have you thought of building more and making money by marketing

them?’ And the reply was ‘John I have as much interest in commercialisation as I have in watching that grass grow’ pointing to some grass at the bottom of the rollway trellis steps we had built for access. I submit the two statements are related in that both have the *sauvage* in common – in the end one cannot ‘price the rainbow’.

**Educational Actionista I** then many be defined as ‘*someone from the street who celebrates, while acting on their upfront refusal to stand by and instead chooses agency over submission to structure in order to take control, as far as practicable, over their own learning and thereby destiny, particularly in regard to practical learning that refers to matters ordinarily seen as beyond the power of individuals and one who believes and knows that they can change the course of history based on the power of their, and their peers’ street bred street cred actionista actions’.*

**Educational Actionista II** The key components of EAII are (1) family; (2) community and (3) school. Each component should I argue contribute 1/3<sup>rd</sup> towards the overall education of a person, possibly with the former two somewhat stronger in the childhood days. A metapedagogy needs to be developed to reach over these three with ‘T’eachers only involved in (3). This for me is a family responsibility. No. (2) would, for instance, involve community service, work experience, ‘bench’ time, volk handworker involvement inc. mentoring – Kids and Adults Learning.

### **Evolution | God as Bushy**

The study of biology and thus evolution makes it clear that living organisms are ingenious contraptions, artifices cobbled together from odds and ends as circumstances dictate. Although many bits operate beautifully a lot of the ‘design’ has a make do Bricoleur – use what is at hand – air about it. Davies (2006:222 – adapted PW).

**Exempclarified** – a neologism from a combination of *exemplar* as in prime project and *exemplified* as in demonstrated an expansion of exemplified also incorporates aspects of *clarified* as in proof of concept.

**Exemplar Project – an exoteric perspective – logic base:** the first of the four Artificer Logic Base Principles (LBP), it represents the modern-day self-actualisation equivalent of the journeyman’s piece of the Middle Ages. This is self-actualisation in the context of serving Gaia. Thus the Exemplar Project is *an efficacious physical project that is designed to address glocal needs and is constructed and tested by the Artificer/Journeyman in her own time as the best of class in terms of her capacities and state of the art techné and technique.* That demonstrates the intertwining of the noosphere and physiosphere i.e. of thinking and doing. It is adjudged by peers.

**Exemplar Project – an esoteric perspective – chiro-spirituality:** the exoteric EP can be seen as a metalogue or creative synthesis between spirit – outer understood meaning (ideas, theories), matter (physical world), and soul (groundedness – inner experienced meaning – the EP’s physical components – the EP’s anchor to the world). In Gaian terms may I suggest the EP can be seen as the ‘s’elf-actualisation marriage proposal from the Artificer to Gaia – with Gaia representing Mother Earth in a mythic sense that is the ground the chthonic realm inc. raw materials, water, lava and so forth and all that is in it and comes

from it and this everything that is made there from e.g. nuts and bolts and computers and internet, myths and us. Further if one acknowledges say 'psychological energy' then in a Jungian sense an EP may be seen as a distilled/constellated/crystallised form of such energy.

In line with Jung's view inhabiting such a symbolic world for any length of time can be nourishing for the body, mind, soul, and spirit and can aid in the harmonisation of one's energy flows internally and externally. Slattery (2009:100). So in this sense an EP maybe considered a lightning rod/two-way conversion station/power station in a flowing matter-energy morphogenetic field.

Dexterity now achieves an esoteric dimension and we see the potential emergence of a chiro-spirituality.<sup>xxxix</sup>

**Experience | Inperience** is in this series the flip side of ingenuity on the coin of imagination so to speak.

Ultimately the process of making meaning from the result of stimuli generated by with and to the person, received by the senses and processed cognitively. Here we do have an external

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<sup>xxxix</sup> Giambattista Vico (Naples, 1668-1744) propounded a *spiral* theory of history in his book *New Science* in which he posited that the best solutions to human problems contain the seeds of future [worse] evils. He claimed both that violent warlord- cultures could evolve into sophisticated civil societies over time, and that highly ordered civil societies could plunge *via* social chaos into thugdoms (where thugs rule not kings e.g. Abu Gharib). He gave some detail of the upward spiral, pre-empting Adam Smith's doctrine of the 'hidden hand', and much of the historicism of Hegel/Marx/Engels:

*Out of ferocity, avarice, and ambition, the three vices which run throughout the human race, it [Providence] creates the military, merchant, and governing classes, and thus the strength, riches, and wisdom of commonwealths. Out of these three great vices, which could certainly destroy all mankind on the face of the earth, it [Providence] makes civil happiness.* Vico (1744/1986:62).

While this remains a deeply insightful perspective Vico like several esoteric taxonomies, e.g. especially Asian Indian ones, miss the artificer the craftsman the builder the artisan. This I submit is a fourth category of 'natural employ' that provides a way out of the above dilemmas from this presumed universal tripartite taxonomy. (PW).

Vico is best known for his *verum factum* principle, first formulated in 1710 as part of his *De Italorum Sapientia*. The principle states that *truth is verified through creation and invention* and not, as per Descartes, *truth is through observation and reflection*: 'The criterion and rule of the true is to have made it. Accordingly, our clear and distinct idea of the mind cannot be a criterion of the mind itself, still less of other truths, for while the mind perceives itself, it does not make itself.' This 'constructivist' criterion for truth would later shape the history of civilisation in Vico's opus, the *Scienza Nuova* (The New Science, 1725). With Vico the 'universal' through enlightenment reason does not attempt to overcome the local or particular 'poetic' dimension of life and speech, but to moderate its impulses so as to safeguard civil life.

Vico's position here and in later works is not that the Cartesian method is irrelevant, but that its application cannot be extended to the civic sphere. Instead of confining reason to a string of verifiable axioms, Vico suggests (along with the ancients) that appeals to phronesis or practical wisdom must also be made, as do appeals to the various components of persuasion that comprise rhetoric. [NB: I would humbly suggest prohaeresis may be added to phronesis to give us artificer's futuring the basis of this eBook].

Here we can see Vico emphasising the moral, and practical attributes of knowledge as counterpointed with the reflection, and observation attributes thus four sides all up, another, fifth, attribute historical knowledge for me is not denigrated by any of these four. In this sense Vico is, to my mind, challenging both Plato and Descartes respectively in relation to reflection and observation. This challenge is very much in line with the principal propositions of this eBook and if I may add the Romanticists.

world however it is mediated by our mental categories. These categories can be internal, biological, sociological and pedagogical. It is crucial please that the reader does not see this argument I advance in support of experiential learning as ‘the reification of experience’ and ‘the mistaking of experience for reality’ that is ‘the conflation of the map for the territory’. Bronk (2009:258-260) In an ever deeper sense there is an argument, still radically controversial, that consciousness is woven into the fabric of space time, that we as observer participants are not external to the cosmic dramas we see unfolding in the night sky just as we are not external to the writhing dance of Gaia as she experiences global warming that is at least partly anthropocentric.

So just as, and even more so than when, Kant separated ‘the world as it is’ and ‘the world as it appears’, and, if I may add, ‘the world as we experience it’ is in large part generated through our consciousness, so our experiences large part generates our world. In fact as children our children helps shape our brains in the first few years postpartum as two thirds of brain growth occur post partum in humans and thus our consciousness is shaped by our experiences in these early years. Indeed even languages themselves, scientific language notwithstanding, are hermeneutic in a sense they constitute, through their word categories, what is being observed as well as what is observed.

We then apply our requisite cognitive filters/concepts/categories to our experiences to make sense. This Artificer tradition then is not empirical in the sense that empiricism maintains there is a separate posits an objective world out there that is external, discrete and unaffected by observation. Rather in the Artificer approach ‘experience’ is the Bronkian Romantic dance between the observer and the observed between it and ingenuity and between consciousness and the world that gives it rise, subject and object, I and We. That is Action (experience) ↔ Consciousness (experience) ↔ Perception (insperience) ↔ Interpretation(insperience) ↔ Action ↔ Consciousness i.e. → is *a priori* and ← is *a posterior* both are interpretive i.e. hermeneutic. Here insperience means the inner counterpart of the outer experience or vice versa e.g. spiritual retreats are often aim at inperince through religious experiences.

**Faith** – in a Christian sense **up until the 15<sup>th</sup> century faith meant action not one’s belief** viz. your faith was in your words as in the old English saying ‘deeds not words maketh the man!’ Its only since the enlightenment that Faith has come to mean belief i.e. words. Here the proof of one’s faith was to be seen in the efficaciousness/fruits of one’s actions - ‘by their fruits ye shall know them’. Matthew 7:16 and 7:20. Here, I submit, fruit does not mean a manifestation of faith but means faith itself faith is fruit. If there are no fruit then no matter what the person says (in effect) about how much faith or piousness they have there is none. I further submit that in this context ‘fruit’ is not essentially my profit or prophet or income rather it is mutual aid/social holon actions even as a form of penitent love as with the exemplar project being seen as ones ‘marriage proposal to Gaia’.

The latter allowed the emergence of the inquisition and strongly institutional hierarchical thought controlling church. In the context of this eBook faith then may be seen in the old English sense as the Exemplar Project. One can also speak of ‘faith of action’, faith with action’, ‘action with faith’, ‘faith as action’, and ‘faith in action’.

**Farmacist** – the DIY Artificer Prosumer Wholefood version of Pharmacist derived from Don Tolman’s DIY Bushy Health approachg <http://www.dontolmaninternational.com/>

**Financial Economy** – see Monetary Economy – generally Finance is considered M3-6 and excludes M0-1. This is discussed in detail in Monetary Economy below. Importantly the FE is essentially ideational and composed of abstract or intangible entities themselves based on intangibles e.g. derivatives based on dollars are in reality nothing based on nothing because the President Nixon removed US dollar ↔ gold convertibility in mid 1972.

**Fractal** – Fr’act’al – acting local with global in mind another word for glocal

**Futuring** – proactive futures also called *critical praxis futures* and in this eBook Critical Futures Chiro-Praxis. Futuring is embodied in the concept of the exemplar project *a practical demonstration today of how we can live together in ways that demonstrate that a better (not bitter) world is possible tomorrow*. This can be posited, I suggest, as a fourth category of Aristotles knowledge taxonomy viz: (1) Empirics – evidence based scientific knowledge, (2) Hermeneutics – interpretative knowledge, (3) Critics – critique based knowledge such as postmodernism, Marxism and Feminism, and (4) Futurics – futuring – knowledge from proactive action – acting ahead wisely

**Gemba** – the place where truth can be found (Japanese) links to Muda – waste in Kaizen and other key terms in the lean manufacturing lexicon inc.:

1. **Hansei** -self-reflection
2. **Kaikaku** - drastic or structural change
3. **Kaizen** - continuous improvement
4. **Muda** - waste
5. **Mura** - unevenness in operations
6. **Muri** - overburdening of people and equipment
7. **Sensei** - lean thinking mentor
8. **Yokoten** - the term Toyota uses for the horizontal transfer of information and knowledge across an organization.
9. **Gemba** – the place where truth can be found (Japanese)

All of these terms and the overall lean manufacturing process [Womack and Jones (1996:27, 168)] apply to the Artificers/Bush Mechanic calling. Critically this approach does seek to remove waste but not slack necessary for innovation.

**Glocal** – gro local and act global – act local and grlobal – the intertwining or barding of local and global action and thinking

**Hand born** – every human is hand born and the hand is the first outside contact she has plus in an evolutionary sense in the beginning was the hand and the hand made the universe and our hand, made us the human and wrote i.e. became logos

**Hand made** – the human speaking evolutionary wise is handmade. As several million years ago we started with a modern hand but with a brain capacity of 400cc. In a broader and deeper sense evolving hands for claws that can be used to manipulate the external world whether it be Homo Habilis (Handy man) or a dinosaur *Haplocheirus sollers*

(meaning simple skillful hand) 160m years ago, allows the animal to engage in behaviour that can be open ended in an evolutionary sense. So that handmade or claw made is a more generic principle that possibly in its grandest application applies to humankind however it also applies to other species elsewhere in the biosphere.

**Handual** – dexterous hand movements in making something manually

**Haptic** – wrt the sense of touch – haptic technology inc. setting your phone on vibration, Braille, and for instance the stick shaker on aircraft to warn the pilot stall speed is approaching. Haptics or Chirotics is ‘the’ latest in virtual technology as virtuality today is basically visual a visitics and increasingly ‘feel’ and ‘touch’ will be added from a tecni perspective though not from a ‘techne’ one. Imagine being able to ‘build’, using haptics and visitics (sense of vision) your own car nuts and bolts.

**Holontology** – having the praxis of holons as a way of being an ontology so an example of holontology would be a biological system even an Exemplar Project especially as it fits into Mutual Aid the second principle of the Artificer Logic Base – the Artifiseer and the Holontology.

**Imagination** – a neologism from imagination and action – (closely linked to creativity and Innovention and ingenuity as in the title of this series) not only an active imagination yet rather an imagination in action – see creative. Imagination has both sympathico (individual self-interest) and empathico (empathetic concern for others leading to altruism) - dimensions, of imagining a better world for our children as well as the self-interested version. Yet two other crucial aspects of imagination are laterality that is lateral thinking and linking as well as what Bronk (2009:277) calls ‘negative capability’ that is being able to exist in an environment of radical uncertainty and achieve creative, or if I may creative, outcomes.

Imagination especially for rational theorists is a particular bug bear as it seems to be pushing towards the view I have expressed elsewhere in this piece that mentation includes imagination, emotion and rationality. And indeed if ‘reason’ and mentation are conflated then reason includes imagination and emotion – indeed a ‘romantic’ view. Crucially imagination shows that humans at any age can generate new neural pathways through its application. Reshaping neural pathways is a crucial aspect of ‘growing up’ or ‘maturing’ well in this case maybe we never stop. Further imagination is crucially necessary when facing radical uncertainty in Complex Creative Systems (CCS) beyond complex adaptive systems, where novelty, ingenuity and prototyping must play a significant role. Bronk (2009:301).

In this series the term imagina(c)tion is used in the sense that it is a human faculty that ‘adapts previous experience to possible eventualities’. And that this process includes a capacity to ‘unsystematically juxtapose fragments and aphorisms as a means of prompting new insights’. This is somewhat different to Plato’s view of the imagination of ‘fusing together of sensible particulars and different faculties into ‘ideal perfection/forms’. Bronk (2009:206, 319, 319). Overall imagination involves: experience, lateral thinking, juxtaposition of fragments, tacit knowledge, use of aphorisms, poetic ability, epiphany and so-called ‘eureka moments’, ‘NPF- New Pattern Forming, holon detecting, different

faculties e.g. reason, emotion, colour, imagination etc. and the ability to be unsystematic yet fold this imagination into an action framework – imagination, which, in line with a major tenet of the Artificer series would include ‘D’esign of PIDIL.. From an esoteric perspective even, a glimpse of the life energy or bon vita that informs even pervades all reality with aletheia – the unfolding the emerging - rising so to speak, almost a ‘listening to god’. See also Bronk (2009:206-7).

**Innovention** – a neologism from innovation and invention - what Bush Mechanics do, closely related to ingenuity, a meld of innovation and invention re-birthing the old anew and renew. Clearly innovention plays a key role in what is called ‘endogenous growth theory’ in regional economics and is part of Schumpeter’s (1943) creative destruction view of economics.

**Instrumental** – rationality as a counterpoint to substantive or moral rationality supposedly is about means not ends as in the case of moral rationality. Thus the Artificer is about instrumental-rationality and I would add thus **chiro-rationality**. Yet I suggest in this eBook that the two are braided is and ought; act and thought are a four way heliexed MNA i.e. Memetic DNA that finds expression for example in the Artificer/Bush Mechanic.

### **Integral Ontological Process – an Integral Emergence Manifesto**

Globally we see a new third sector **Ecological Manifesto/Political Economy** is (re)emerging. We call it **Integral Emergence** or I.E. for short, an emergence that can be seen in numerous yet disparate and loosely coupled third sector movements groups and actions. Further there is, we argue, an emerging broad consensus now among these previously disparate groups across Australia and indeed the West. These groups are stunningly diverse ranging from hard line deep ecology, green faith, social action from the left and right of the political spectrum even reconstructed P&T Groups, even reconstructed progress associations and RSL’s.

Mainstream political movements have proven to be agonisingly slow in recognising this global movement which, we argue this recognition will represents nothing less than a change of consciousness and a subsequent change in governance and organisation. In short change towards an **Integral Glocal Emergence (IGE)**. Associated themes within this change of consciousness is an Integral approach based on the unshakable belief that, counter to much Western thinking, everything is unshakably related to everything else and that in turn this means thinking is related to doing. This workshop will seek to establish ways to self harvest and harmonise this emergence in a Community Of Praxis.

Outworking this seemingly innocuous development means, for instance, developing new ways of social organisation that allow for the sustainable economic support of a community of communities, as well as collective governance that is inclusive and deeply participative (not about me without me) and as such manifests itself in re-localisation and glocalisation community based collectives and movements – in short *communitas\** - a **Communitas Of Praxis (COP)** after Meg Wheatley and Deborah Frieze’s work (2007), in short the **IGE-COP**. The authors have called this movement IcEd or **Integral community Economy development** with the emphases’ on the capitals. Essentially this third sector approach to

development upturns most if not all the conventional wisdom of Regional Economic Development. The workshop will explore several key areas of this IcEd upturning.

In addition the consciousness has all but overturned the conventional separation between Higher and Vocational Education, between professional and technical trades and between the ordained and the lay. This bridging of traditional dualities is through in effect a society wide system of action learning circles. A concrete example of this is its application, by the author's, to planning the reconstruction in the Kinglake Maryvale area in Victoria which was all but obliterated in the savage bush fires earlier this year.

This approach which integrates within IcEd a broad eco-socio-econo holonic alliance, such a political economy has the following broadly common characteristics (attributes, practices and thinking):

**Readers Note:** to establish this list we reviewed the 50 or so newly emergent NGO's we are aware of and listed their attributes then aggregated them – this is hardly rigorously scientific however it may be relevant from an emergent meta-strategic perspective incorporating as it does the empirical list with our meta categories and to an extent our intentionalities.

A new **Emergence and Ecological Manifesto/ Political Economy/Actionista Maifesta Ecologia** is (re)emerging, which integrates the Artificer within IcEd and then within a bigger circle of a broader eco-socio-econo Holon. Such an ecological manifesto has the 'Communitas Emergent' political economy has the following characteristics (attributes, practices and thinking)

**[A] Attributes/Conceptual/Thinkings -**

1. Technology-enabled while techne oriented. Heterotechnic polyolith syntax = tools in gravitational field = cooperative project language. Ingold (1993:342)
2. Holonic
3. Open sourced
4. Peer-to-peer
5. Decentralised,
6. Progressive while of conservative positions
7. 10,000 hour humility rule (Zen-it). Gladwell (2008:Ch2).
8. Deeply socially democratically and participative and inclusive with community deliberation viz. 'no about me without me'
9. Ecologically restorative with an ecology that situates not separates humans within Nature
10. Population stabilised
11. Play situated (Intelligent Narrative Play)
12. Beauty appreciative
13. Inspirationally receptive – the 'ah ha' moment
14. Praxis orientated through Action Learning and Research
15. Glocally communitas oriented as in Communitas Of Praxis cp. Community Of Practice\*,\*\*

**[P]Practices (linking thinking and doing) –**

1. Subsidiarity in governance,
2. Embedded Human Rights
3. Re-localisation-in socio-economic focus (3-4 are the primary foci of IcEd)
4. Reuse and repair in the context of local sustainable development with recycling as the last resort,
5. Deep and broad green and yet ecologically modern
6. Practices wise eldership holonically integrated with EIE consumption, Reuse and Repair integrated through community economy with its local production for wise consumption i.e. prosumerism
7. COP (Communitas of Praxis) \*,\*\*
8. Biometaphoric inc. copetitive cp. competitive eco-technical\*\*\* approach

9. Focused on the emergent and *encouraging of right behaviour tomorrow* rather than an exclusive punitive focus on *punishing wrong behaviour yesterday*
10. Moral directionality

[O] **Outcomes/actions/doings\*\*\*\*** - and through these attributes and practices seeks to be based on (re)newed Integral way of Thinking that braids with Acting i.e. -

1. **Carbon Conscious:** Foundationally energy and carbon efficient (through consumption/carbon set-off/s/footprint management/sequestering etc) prototypes
2. **Reuse before Recycle:** Substantially de-materialised and re-materialised with existing resources inc. Enough-Is-Enough (EIE) approach to consumption, work and resource use in community exemplars
3. **Harmonising and resisting:** Respectful yet harmonising of diversity rather than, and resisting, centralising of conformity in all projects
4. **Foundationally Activist not Think Tank:** Pedagogically re-evolutionary that is praxis even action oriented whereby theory is lensed through practice rather than exclusively vice versa
5. **Learning Intense:** Re-integrative of Life Long, Life Wide and Life Deep Learning
6. **Exemplar projects oriented:** that demonstrate today in reactive, artistic and highly innovative, ways how we can live together today so that a better world is possible tomorrow for our children
7. **Culturally integrative** and generative and meaning recovery-oriented,
8. **Deep and broad green** and yet ecologically modern i.e. green integral
9. **Eldership or wisdom respectful:** based on wise eldership holonically integrated with EIE consumption, Reuse and Repair integrated through community economy with its local production for consumption i.e. prosumerism
10. **Creactive, artistic and highly innovative,**
11. **Demilitarised and Remilitarised** – green marines
12. **Biometaphoric** and Biometric inc. copetitive cp. competitive inc. myth and math
13. **Participative** and Reward oriented viz. COP\*\*\*\*\*
14. **Eco-nomics:** Validating of Ecological Economics/Bionomics.

Source: Daryl Taylor/Paul Wildman V6 @ 06-08-2009 comm. 29-06-2009.

\* **communitas** is used in the integral sense of its derivation from culture and its equality, conviviality and inclusion of the voices of the silenced ones inc. the informal sector – the integral ‘we’, here ‘we’ is the stand point for the integration of the other three quadrants of ‘I’, ‘it’ & ‘that’. Whereas **community**, we maintain, has increasingly been appropriated by state controlled discourse, viz. the integral ‘that’ which seeks to control top down the ‘it’ quadrant, all of which generally excludes in particular ‘I’ and ‘we’ quadrants – classically ‘you walk my talk’ and ‘don’t talk on my walk’. Wilber (1995:122). Further community in this regard of the ‘that’ quadrant, for instance declares the peoples sector viz. the informal sector as the ‘we’ quadrant as at least suspect, often illegitimate and emergently illegal.

\*\* **Praxis** in the radical sense of praxeology that is using action/doing as ones standpoint epistemology not cognition/thinking as is standard in western intellectual circles that are the actual is ascribed primacy over intellectual. Further praxis is reflexive and inflexive in that it includes reflection that includes the observer’s role and the observer’s inner convictions and beliefs in the overall project

\*\*\* Taking an **eco-technical** approach to nested systems development el ar Fred Emery (1993) Wildman (1998) and matching this with Rachel Carson’ (1962) ‘**Web Of Life**’ approach as concretely articulated by Kathia Laszlo (2009) in her model of ‘**evolutionary development**’ and expressed through an such an IcEd (Integral community Economy development) Community of Praxis that also reflects the work of Meg Wheatley and Debbie Frieze (2007). Further IcEd recognises it needs to engage in an ongoing basis with her [Laszlo (2009:163)] three forms of dialogue: (1) **generative** (a sense of belonging, mutuality and solidarity), (2) **evolutionary** (emergence, holonic systems envisioning and enactment, netweaved), and (3) **strategic** (identifying and catalysing options for actions); and we would add a fourth (4) **enactment** (inc. and the lensing of theory – of actions as well as theory of theory so to speak, thereby as well as evaluation and action learning from outcomes etc.)

\*\*\*\* Conventionally actions are seen to emerge from theory which is embedded in cognition then stream out of conversations and that is the thinking precedes the action however it is possible to identify those already taking actions such as artificers and bush mechanics and to aid them in inductively exploring theory from the perspective of their actions. This is a form of **inductive reflexivity** if one will. And to assist them to see the strategic and evolutionary as well as generative aspects and attributes of their actual project work – *to work it out* rather than *think it through anew*, so to speak.

\*\*\*\*\* A Community Of Practice or as I prefer to say in this series a Community Of Practice (COP) and in the context of this series **Communitas Of Praxis** in the context of the bush mechanic is about *learning collectively from individual practices* viz. exemplar projects and the artificers who generate them. Hearn et al (2009:74). This requires a COP to identify, amplify and disseminate and netweave such learning's. This means such a COP needs to conceptualise its task as 'socio-technical' rather than purely 'tehno-scientific'. Such COP's needs must recognise and incorporate collaboration and design across cross-disciplinary silos. As such a COP system can include blogs, f2f meetings, socio-technical gatherings, field trips etc. So as indicated in the footnotes to the following table Community Androgogy or what maybe called a ParaPedagogy for Artificer Learning. So a COP may be considered an Androgog(log)ical ParaPedagogy.

Here we can see the process of 'emergence' in progression towards a COP and from a COP in the following: Bush Mechanic Principles - *Wheatley (1999) process of emergence*

1. Innovation – proof of concept – Exemplar Project - local
2. Linking with other innovators – Social Holon – *Communitas Of Praxis* (see above)
3. Associating with the big picture – Global Problematique – *Global Systems Of Influence (SOI)*
4. Folding this into the reflexive present – (tr)-Action Learning – *Glocal SOI's*.

**Learning Typology: (1a) Formal Learning, (1b) Non-Formal Learning, (2) Informal Learning, (3) Life-Long Learning, (4) Life-Wide Learning, (5) Life-Deep Learning, (6) Life Wise Learning (LWL):** The distinction between formal and non-formal learning environments is about where learning takes place.

**(1a) Formal Learning (FL):** occurs within institutions established primarily to deliver education and training, often leading to recognised outcomes and qualifications.

**(1b) Non-Formal Learning (NFL):** has intended education and training outcomes; however, the setting is outside dedicated learning institutions, most often in places where learning is not the primary business.

**(2) Informal Learning (IL):** is distinguishable by intent. It can occur almost anywhere, but as a by-product of other activities. It is often unplanned and without explicit emphasis on learning, yet may still lead to the acquisition of valuable skills, knowledge and attitudes.

**(3) Life-Long Learning (LLL):** dimension is relatively non-problematic, as it simply comprises what an individual learns throughout life. It is widely accepted that as knowledge and skills become obsolete, individuals continuously update their competencies in a process of continuous learning.

**(4) Life-Wide Learning (LWL):** dimension is more complex, as it embraces an extensive range of learning settings, contexts & contents relevant to ones lived life e.g. LWL covers the various content foci of one's life e.g. from hobby of x to profession of y to assisting others do z viz. various widely diverse content areas of one's life wherein one specifically seeks to learn.

**(5) Life-Deep Learning (LDL):** dimension is really a vertical dimension to this two dimensional matrix and in essence refers to conscientisation and consciousness raising, also called context learning viz. providing the context e.g. in early childhood, getting closer to the core, foundation, base or root of our conditions, issues & assumptions. LDL - Seeking

out, identifying, understanding & engaging those deeper layered perspectives in ones Lived Life.

**(6) Life-Wise Learning (LWL):** basically a culmination and cumulation of the above over an extended period of time say a decade or more.

Seven types of Life-Deep-Learning: (1) Critical Consciousness; (2) Liberation Theology; (3) Feminist Theory; (4) Heuristic Inquiry; (5) Reflexive Praxis; (6) Depth Artificer Learning; (7) Life Context Learning; (8) Esoteric Learning, (9) Life Wise Learning.

Strangely this is a crucial form of learning completely ignored in the formal conventional pedagogy. It is embedded however in for instance several (generally experiential) pedagogies such as (LDL1) conscientisation by Fiere (1972), (LDL2) Liberation theology and some (LDL3) Feminist Theory, (LDL4) Heuristic Inquiry, (5) Reflexive praxis (LDL5) and, (6) Life Context Learning (LDL6). Authors such as Gladwell (2008), Illich (1970) also refer. (see Chapter for further details on LDL)

### **Left Brain Right Brain**

The Exemplar Project of the Artificer can be seen as a sound way of balancing the left and right brain hemispheres. In that creativity and pattern recognition and lateral creativity are required (right brain) to balance with dexterous, chiro based proreception (positioning the body so as better to use the hand), measurement etc., then re-combining both hemispheres through the EP's fitness in use. For instance Shuttleworth (1993) speaks of the artificer as being primarily right brain so neither a technophile nor a technophobe, and as being with the artist and dreamer we get lost in the left brain obsessed school system.

**Literacy's and Utopias-** Generally literacy means fluency in one's life-world. There are many types of literacy such as: functional literacy (life skills), **cultural literacy** (gaining access to cultural institutions and mores), **technical literacy** (technological), **critical literacy** (an emancipatory process through conscientised actions in the Freireian vein) and I would submit **praxial literacy** (the ability to express ones individual and collective agency through conscientised dexterous praxis in physiospheric projects of the Artificer and Bush Mechanic), also known as **technecial literacy** or **artificerial literacy** and related **chiro-literacy** which relates to dexterous hand use. See Mayo (2004:35). Literacy here is fluency in one's life-world. For me literacy like pedagogy must be authentic in and to the lived life of the student and thus must connect to the world outside the classroom and let it through the lived life of the student connect into the classroom.

**Artificer or chiro-literacy then is for me a meta-literacy, a bildung literacy, a glocal literacy at once local i.e. simultaneously a specific and general literacy in that it is a systems nest, if you will, in which these other literacy's sit, which include it as '3H dexterous hand use' [Head | Heart | Hand].**

Pedagogies are situated and so these multiple '3H' literacy's are interconnected, I suggest herein, by the 'dexterous and good use of the hand'. Also we can at least start to envisage a utopia associated with each of these pedagogies in an interactive feedback and feed forward sense. So that it is at least possible to consider a praxial utopia or praxitopia.

I suggest that the critical and cultural literacy's are sociological in nature thus emergent from, though not fully constrained to the noosphere, whereas the paraxial literacy is praxiological that is it is manifest through praxis. Certainly cultural, critical and paraxial all recognise the importance of non-cognitive domains of being such as emotion, hand work, for instance critical and paraxial literacy's resist the hegemonic discourse of technical rationality, marketplace accountability and global competitiveness, such that particularly in relation to critical literacy. Mayo (2004:8).

Pedagogical activity is conceived not in a vacuum but rather in the context of an analysis of power and its structural manifestation. We need pedagogies to resist the hegemonic standard status-quo Western pedagogical discourse of technical rationality, marketplace accountability and global competitiveness.

In this way I submit that **Paraxial/Artificer/Bush Mechanic literacy** may be concretised as the Exemplar Project seen as cultural action flowing from critical literacy thus a sense of individual and collective skilled agency can be developed.

**Literati** - noospheric intellectual nerds.

**Macrohistory - Five Phase and the readmission of the Bush Mechanic** - For me the Bush Mechanic/Artificer provides a PPPM macro-historical perspective on Homo Humanitas viz.:

- (1) **Archaic** (pre human 1.4myrsBP, Homo Habilis as 'hand made man', noble savage, New Grange, Stonehenge to Neolithic period and the beginning of writing, remaining today as for instance the Bushman of the Kalahari and Australian Aboriginals in the Kimberley area Western Australia)
- (2) **Modern** (mechanic – noospherically – the clockwork universe and physiospherically – the crystal palace etc.)
- (3) **Post Modern** (philosophically deconstructive and critical of the modern - trenchantly noospheric - with no grand narratives allowed – 1980's to 2000)
- (4) **Post Post Modern** (a post rational, noospheric naivety whereby grand narratives and some renaissance traits readmitted – 2000-2010), and
- (5) a **Post Post Post Modern** era of today with PPM plus whereby; (1) the archaic is no longer pejoratised, (2) physiospheric dirty hands futures are embraced and, (3) the romantic *le bon sauvage* is 'revoiced' and readmitted to the academy, thus transforming it. This time synchronised that is occurring synergistically together for the first time in history.

Again (5) is not so much a one way 'turn back' rather 'a turn-around' indeed a mobius like recovery whereby the interior can now be the exterior and so on and then continue forward. Bronk (2009), Galtung and Inayatullah, (1997), Lockridge (1989), Morris (1890), Polak (1973:98-99). Some readers may well argue, in the spirit of the 'turn back', that this is little more than a re-emergence of Pax Arcadia that is the 'rearchiacisation' or 'sauvagisation' or even 'animalisation' of utopia.

Here I say all societies and religions everywhere and at every time have embedded in them a notion of 'utopia'. This I do not dispute and there are shades of this in my PPPM vista above however I do not posit this in any colonising way as 'T'he new unidirectional and

totalising turn whereby the West again asserts its primacy over 'the other' the indigenous the 'not yet West' with yet again a 'scripted future' within in which the other and we are but consumers as passive players.

**Marriage** – always involve the hands in being decorated or receiving a ring on the 'ring finger' which goes straight to the heart, or pagan marriages with tying the hands together of the marriage partners. For instance marriages performed under the Goddess are much like the pagan ceremony of handfasting, which involves binding the hands of the couple together.

**Monetary Economy** – all Monetary Aggregates in an economy – nowadays up to 30 times the size of the physical economy.

**NB: There are Seven types of Monetary Aggregates (MA) or Money Supply (MS) in Economics:** from **M0** (basically coins and notes in circulation). The next narrowest measures of money supply are **M1** (**M0**+ and bank reserves with the central bank) and **M2**. These add various types of deposits by the private sector with banks and other financial institutions. These are still regarded as narrow measures. They are sometimes referred to as narrow money. The broad money measures (**M3**, **M4** and further) add other types of money such as bank acceptances, commercial paper and bonds. Some countries (but not the UK) include foreign currency deposits. **M4** then is **M3** plus financial and debt instruments, with maturities of up to 5 years. The leveraging, derivativisation, collateralisation of debt etc., which we see in the financial economy today, is beyond **M4**; and in this regard I propose, and use in this chapter, **M5** to include these 'intangible' instruments such as derivatives and futures which are not money, not debt, not physical products - a phantom, possibly we can hypothesise an **M6** which is phantom wealth where in we have the leveraging of collateralised debt instruments from **M5**. This chapter uses the term money supply or monetary system in this broader **M4** and beyond type manner and beyond, in effect, including all forms of dollar denominated financial instruments whether debt, leverage, hedge, derivative and so forth. As we move from **M0** to **M5/6**, we move from public to private, from public control to private whim and appropriation, from concrete abstract to intangible abstract, from regulation to speculation, from Main Street to Wall Street, from Oikonomia to Chrematistics. Wildman (2009:9).

**Muda** – see Gemba

**Obtainium** – secret magic metal known only to bush mechanics can also manifest as electrical parts, wood paint and fencing wire as well as meal ingredients etc. For instance obtainium mysteriously appeared on board and was widely used in the rescue mission for Apollo 13.

**Paideia** - the *Paideia*, and ancient Greek philosophy celebrates the fundamental notion that to be fully educated is a lifelong adventure that only begins, and doesn't end, with an individual's formal schooling. It is based on the assumption that all human beings are by definition activist learners, capable of a fully humanistic life defined by intellectual growth. Thus, *Paideia* schools should ultimately be judged by how well they prepare students for a full and active noospheric and physiospheric life of the heart, mind as a global citizen. Indeed *Paideia* was the process of educating humans into their true form, the real and genuine human nature, however due to its origins in Socratic and Platonic philosophy I tend not to use this term although I do respect its use by such luminaries as Bussey (2008).

This is my interpretation of the term. Following is the ancient Greek interpretation, nevertheless *Paideia* is an extremely important underpinning concept to Western pedagogy.

The Platonic view however is very different, in that since self-government was important to the Greeks, *paideia* (good learning) then combined with ethos (good habits), made a man good and made him capable as a citizen or a king. **This education was not about learning a trade or an art, indeed for Plato and Socrates the average citizen was little more than a donkey**, which the Greeks called *banausos*, and **which were considered mechanical tasks unworthy of a learned citizen**, but was about training for liberty (freedom) and nobility (the beautiful). *Paideia* can also be seen as the cultural heritage that is continued through the generations.

Indeed Bussey (2008:155) sees these as our epistemological and indeed pedagogical underpinnings of Western society and thus our modernity. Furthermore he sees these roots of our culture as our ‘ancient wounds’ that actually generate much of the instrumental logic that orders our cultural and thus pedagogical institutions.

**Pedagogy** – ‘P’edagogy includes ‘p’edagogy of teaching, as well as the educational system, inc. school, teaching, curriculum, education, kids and adults, vocational, general and higher ed., adult ed. (androgogy). Here we may in a constructivist and post-structuralist senses include contingent discourses, gazes, and concepts of the nature of: (1) children, (2) adults, (3) the society in which Pedagogy is nested, (4) learning and critically (5) the structure of (5) knowledge and (6) the structure of Power viz. classroom (teacher’s authority over), school (compulsory attendance), assessment and certification. See also Alexander (2001:551). The latter is crucial to this eBook as I posit that Artificer Learning is based on a substantially different concept of the structure of knowledge (close to epistem) than say Status Quo Pedagogy is, for instance.

Critical pedagogy for in instance calls for the construction of a praxis where peripheralised people... are no longer induced to fear and obey the White Gaze of Power. Alexander (2001:564). I see critical pedagogy as a subset of experiential learning pedagogy and in turn artificer learning pedagogy to be a subset of critical pedagogy.

**For example** ‘p’edagogy can see children as: (1) imitative learners (apprenticeship model of teaching); (2) learning from didactic exposure (sponge model of teaching); (3) thinkers (academic model of teaching); (4) knowledgeable (lived life and tacit knowledge model of teaching). Alexander (2001:557). This eBook draws strongly from the first and fourth of these developmental epistemic views.

**Physical Economy** – refers to the production, distribution and consumption of goods and services for everyday life inc. its scientific research and technological drivers and expertise. And is generally the physical economy aggregated as GDP (Gross Domestic Product) =  $C + I + G + (X - M)$  or Consumption + Investment + Government Expenditure + (net trade balance of Exports-Imports). In a globalised world the trade balance can be such that Exports are 50% of GDP. [E.g. Malaysia 50%, Vietnam 30%, China 33% for year 2007-8, Aust and NZ 20%, US 10%].

The physical economy does include intangibles such as good will, design Intellectual Property, and suitability for use and prototype design etc. Even the unit of account (given the globe does not have a suitable chart of social accounts) still uses the dollar (usually US)

and this is open to speculation and other ‘intangible’ factors. Agreed, however the bed rock of the physical economy is literally that the bold above and this I argue is qualitatively different to the financial economy where its bedrock is intangible abstractions themselves.

For instance this has huge implications in relation to consideration of Food Miles and Carbon Footprint and suggests that the carrying capacity of the indigenous economy just like the indigenous population carrying capacity of the country will be massively reduced if one considers what sustainable levels of the indigenous physical economy are. For instance in this example domestic production will be halved whereas the financial economy will on present aggregate indication need to be reduced by around 3/4ers or 75% to regain parity between the two economies, let alone adjustments for greenhouse gasses, carbon footprints etc., while food miles having been largely addressed via. Indigenous economic activity.

From a prudential perspective of one gets say some grapes one then pays for the grapes with a compensating reverse flow of money thus there needs to be a certain balance or harmony between the Physical and Monetary Economies.

The Physical Economy then is the home of the Artificer/Bush Mechanic/Sauvage Engineer/Gardner/Chef/Seamstress/Farmer/Indigenous etc.

## Praxy's

**Orthopraxy** – conventional or orthodox practice, techneque is a counterpoint to technique and behaviourism and knowledge commodification such as CBT where knowledge is commodified into units of competence. Conventionally seen as a *lived expression* of orthodoxy that is of ‘the faith’

**Orthodoxy** - conventional belief – status quo – technique fits into the modern orthodoxy of the rule and rule of science whereby science is seen as ‘the’ way to understand correctly the world and thereby to improve it for ‘man’. Can be seen a *cognitive expression* of orthopraxy

**Praxepaxy** – the practice of praxeology that is the actions involved in studying human actions

**Anarchopraxy** – practice of anarchy

**Archaiopraxy** – ancient practice such as the techne, for instance in the ancient Greek sense, Aboriginality context and behind the building and use of the Megalithic Passage Tombs in Ireland, that predated Stonehenge by millennia

**Revopraxy** – revolutionary praxis

**Postmopraxy** – post modern praxis, basically cognitive critique of the status quo– cognito pedagogy

**Psychonaut** – a personal journey of inner self discovery sometimes leading to self-realisation and in this eBook embedded in the journey of the Exemplar Project itself.

*Romanticism* – in many ways this series can be seen as a rejoinder or even rebuttal for the analytic/rationalist/objectivist/positivist/universalist meme so deeply lodged in our Zeitgeist. Coleridge in the early 1800's represents the 'path less travelled' and today the Romanticism remains largely a source of ridicule. C. P. Snow in 1959 identified this as 'two cultures separated by a gulf of mutual incomprehension', and as one of my favourite sayings has it 'harmonisation of diversity not centralisation of conformity'.

As such a so called 'romantic' approach has the values of the organic dependence of all people, the reality of emotion, the vitality of community, importance of locality cp. universality, organic nature of human society, economics as a subset of society as a subset of ecology, unity or synthesis of fragments, importance of the human traits of the bricoleur, imagination and creativity, and the vitality vernacular or Volk. **It is, I hope, that from this perspective this eBook authentically draws.**

In this regard may I suggest that the Artificer is not so much a romantic 'turn back' yet rather 'turn around' and see what threads we have lost or forgotten and then look back to the future and take this silenced voice/pattern forward again. These threads came to the fore in the Renaissance and were later somewhat overlaid by 'positivist reason' in the Enlightenment.

Finally Romanticism especially values play, story, poetry, art and thus, for instance, can be seen in the modern day 'mytho-poetic' men's movement. Romantics preserve aspect of the traditions they are reacting against and attempt to reinvigorate and reinstitute and revision them. This is what I am attempting with the artificer. In this sense the artificer is not about transcendence rather deepening recapitulation and emergence.

The Romantic BM as part of the Romantic alternative Western Zeitgeist

Romanticism is in effect a counterpoint within modernity and I submit provides a road less travelled to the status quo of Modernity inc. Post-modernity. See also <http://en.wikipedia.org/wiki/Romanticism>, Bronk (2009) and Lockridge (1989).

Furthermore I and this eBook series strongly subscribe to the adage that 'those that don't understand history will repeat it' in that we need to seek to understand the broad sweeps of human consciousness expressed in the deep cycles of macro-history as best we can so that we simply don't keep repeating old patterns ad infinitum esp. those that dissipate our energy cause conflict and debase our environment. This position also argues that many of the 'from here out' type solutions that we see so prevalent around us today, coming especially from educated middle aged white males, who are deeply well meaning and all have something to offer, generally do not challenge the macro history or zeitgeist of the times and thus simply reinscribe it.

As Einstein said, and I paraphrase, 'you can't understand a system from within it'.

Consequently there can be no absolute from within a system and so all philosophy is what I call 'flakey' that is there is no one internally generatable value system that can be 'T'rue. There are many 't'ruths and thus one system of philosophy, codified as ethics, can have 'better' answers for some circumstances than other system. Einstein's aphorism is for me the reason why God was invented that is a being who has an external extra-system perspective on top of his/her intra-system functioning which includes us.

In all what strikes true to me is that absolutes i.e. ‘Truth don’t exist and yet nor does ‘value relativism’ that is all systems of ethics are equal that means for instance ‘I can eat babies’. What we need is an ‘either and’ not an ‘either or’ value system, a participative social system with an idea of the ‘good’ and a governance sub-system with intentionality and practicality so that adherents can move towards ‘the good’. The Enlightenment which has give us or modern Western Zeitgeist, in my view, got this only partly right (1/3<sup>rd</sup>) and got lost (2/3<sup>rd</sup>s) : in deifying cognition over practicality yet physicalising the universe (this for me is just bizarre) ‘I think therefore I am’, Cartesian dualisms, adversarial majoritarian governance systems, commodification of the human, narrowing the definition of rationality to exclude intentionality, vitality and imagination, focus on grand theory and universal law and so forth. The Enlightenment was partly right in going for ‘evidence based science’ for instance.

The Counter Enlightenment as codified in Romanticism addresses many of these Enlightenment failures – to my mind. It is well worth a genuine reprise. For instance the US Declaration of Independence and Constitution are strongly a Romantic documents. Further in the counter-enlightenment i.e. the Romantics got it, in my opinion, at least partly right. It is for this reason that I have voyaged in this eBook into Realm Romanticus so to speak beyond the enlightenment world of the dualisms, beyond adversarial thinking and government, to the humble world of the Bush Mechanic the Artificer.

For me one such macro history or zeitgeist alternative consciousness is romanticism that has a deep and long and broad history over centuries e.g. the past 250 years and is in turn built on more ancient foundations from Greece and beyond to Egypt and Byzantium. Generally speaking there are two types of deontological ethics: act deontology and rule deontology. As an approach deontology requires that means and ends/consequences are considered when making ethical decisions. Act deontology maintains that there are no firm ethical rules to be followed when making ethical decisions. Instead, decisions should be made on a case-by-case individual judgment basis, with each individual doing what he or she feels to be the right thing to do at the time viz. ‘do the right thing’. Rule deontology maintains that are firm ethical rules e.g. Kant’s categorical imperative when making ethical decisions viz. ‘do not lie’.

May I submit the Bush Mechanic as a living - relic of such Romanticism alternative Zeitgeist. To my limited mind Romantics can be described philosophically as act-deontological ideal utilitarianism viz. whatever individual and thereby collective acts that produce the greatest good/utility on the whole. Good w.r.t. ‘the ought’, does not conflate with utility as such but rather deepens utility as follows utility is seen as of ‘the good’ rather than merely as of ‘the pleasure’ e.g. ‘The medicine was most unpleasant but it took it for my own good’. For instance in Coleridge, Lockridge (1989:130-132), there were four levels of ‘the good’: (1) *hedonia/hedone* - utility primarily individual – this is the level used in consumerist society and positivist economic theory, conventional positivist economics philosophical utilitarianism and , (2) *eutuchia* collective well-being, (3) *eunoia* – emergence, inspiration, insight eureka/Ah ha moments, and (4) *eupraxia/eupraxis* or prohairesis that is the good that comes from acting ahead wisely.

Clearly the BM is, I submit, an exemplar of the latter i.e. upraxis. Here the 'ought' cannot be defined narrowly by modernity's positivistic rationalism rather the broader Romantic conceptualisation of rationalism inc. emotional intelligence and imagination and locally grounded understanding of the world MUST be included.

Clearly great folks have written tomes upon tomes about these and other forms of ethics and philosophy. I claim no exclusivity to any of the above ideas neither the above discussion nor any significant intellectual understanding or grasp of the issues at hand. Rather I list and outline some of the arguments of others that align with and possibly feed and are fed by the Artificer – as I see the two-way streams of meaning flow.

*Romanticism may be defined as:* (1) gesture and act in (2) sympathetic engagement with (3) the world in order to (3) educate/self realisation about oneself in the world. Lockridge (1989:144). Here we can also see the logic base of the Bushy as: (1) Exemplar Project, (2) Social Holon, (3) Global problematique as contributing to ones (4) educate (education – learning) towards self- realisation in community.

It originates an artistic and intellectual movement originating in Europe in the late 18th century and characterized by a heightened interest in nature, folk poetry and art, emphasis on, and respect for, the individual's intuition, imagination and emotionality, departure from the attitudes and forms of classicism, a challenge to the scientific rationalisation of nature and man, a deep respect for aesthetics as embodying ethics and a challenge to established social rules and conventions. Romanticism advocates that the Enlightenment ideals of **rationalism**, **empiricism**, and **universalism** with the demonisation even of subjectivity and emotions and the imagination have failed to capture adequately the human experience, with its deep emotions and the inherent impurity of personal and social motivations.

The movement followed the German *Sturm and Drang* (Storm and Stress) movement of the 1760's to 1780's. Wherein may be seen the emergence of the incipient European counter Enlightenment movement. Goethe, Schiller, Haydn and Mozart were most noble proponents of this movement.

*The link between the Romantic Movement, the Sauvage and the artificer:* In a word 'naturalism', more broadly 'organicism' and locate the self therein as Lockridge (1989:123) terms it 'self-realisation is a naturalistic ethical theory'. For instance please consider the following quotes from Byron:

I do not live in myself, but I become,  
Portion of that around me; and to me  
High mountains are a feeling, but the hum  
Of human cities torture: I can see  
Nothing to loathe in nature, save to be  
A link reluctant in a fleshy chain,

Classed among creatures when the soul can flee,  
And with the sky the peak the heaving plain  
Of ocean or the stars, mingle, and not in vain. Canto III: LXXII - Stanza 680 pg. 301.

Some other extracts below:

Are not the mountains, waves and skies, a part  
Of me and my soul, as I of them?  
Is not the love of these deep in my heart  
With a pure passion? Canto III: LXXV - Stanza 710 pg 302.

There is pleasure in the pathless woods,  
There is rapture on the lonely shore  
There is society where none intrudes  
By the deep Sea, and music in its roar:  
I love not Man the less but Nature more.  
To mingle with the Universe Canto IV: CLXVIII – Stanza 1600 pg 305.

All extracts from: Byron (1788-1824): *Childe Harold's Pilgrimage*: Bloom and Trilling (1973).

Here we see the key traits of Romanticism as almost a flip side to those of modernity of even post modernity's Zeitgeist. And I suggest they are. These traits represent the unborn child of the enlightenment the empathic society we never had and that today is everywhere around us in shards one of which I also argue is the Bush Mechanic.

Traits of empathy; self-realisation; re-imagined rationality to include imagination, dreams and creativity; mutual aid; and participation in, of, and with, nature; play; imagination; action; resolution of dualities in dialectic contraries; I ought therefore I am therefore I act therefore I think approach cp. I think therefore I am; conscience; arts and crafts as direct and critically important expression of our humanness; respect for chiro-ness and techne; bristling natural energy cp. reason; the local cp. the universal, love cp. utility, the body as the precondition for consciousness, the practical cp. the theoretical, philosophy as a subset of poetry. In all, for me, messy, incomplete, inconsistent in places, untidy even local and yet hugely synergistic liberating of the human spirit and deeply engaging of the human soul.

Romanticism and the romantics, as well as the later German idealist movement it largely spawned, are indeed an eclectic lot. Minds far greater than mine have declaimed for centuries on what a 'romantic' approach is historically, and philosophically and there is no one central list of attributes however these are several that I have identified that are relevant to this eBook series and the Artificer in general. I submit that it provides nothing less than an auspice, a context, a home for us as artificers in an increasingly bewildering alien and now degraded world.

Welcome home fellow travellers. We are like Blake's worms [Book of Thel] – we need to take on the earth, with our artifice to become part of it and at the end to literally become part of it again in death as food for worms and in a sense worms themselves.

This can best be seen, in my view, in the Arts and Crafts Movement was an international design movement, originating in Britain, and flourished between 1880 and 1910. It was instigated by the artist and writer William Morris (1834–1896) in the 1860s and was

inspired by the writings of John Ruskin (1819–1900). It influenced architecture, domestic design and the decorative arts, using simple forms and a medieval style of decoration. It advocated truth to materials, traditional craftsmanship and indeed economic reform. For me the quintessential romantic is Don Quixote who in my version of the story made the windmills to tilt at and spent his life tilting at windmills (status quo) as this was his ‘felt’ or heart calling though in a rational sense it made no sense or cents. Here freedom of craft a homologue of freedom of speech, it is argued, can produce a certain greatness in the society of us common people within a robust civic space.

Possibly even the Cathedral towns of medieval Europe are exemplars of such sentiments. Ornamentation is seen to be secondary to the expression of the nature of the thing decorated. Finally these arts and crafts movement in the UK and to an extent Europe influenced the formation of Workers Institutes and subsequently Workers Education Associations and subsequently Adult and Community Education.

For instance the UK and US phenomenon Society for Arts and Crafts was incorporated in 1897 for the purpose of: *promoting artistic work in all branches of handicraft. The Society hopes to bring Designers and Workmen into mutually helpful relations, and to encourage workmen to execute designs of their own, and to endeavour to stimulate in workmen an appreciation of the dignity and value of good design; to counteract the popular impatience of Law and Form, and the desire for over-ornamentation and specious originality. It will insist upon the necessity of sobriety and restraint, or ordered arrangement, of due regard for the relation between the form of an object and its use, and of harmony and fitness in the decoration put upon it.* Charles Eliot Norton first US president of the Society. For instance the first American Arts and Crafts Exhibition opened on April 5, 1897, at Copley Hall featuring over 1000 objects made by 160 craftsmen, half of whom were women. [see [http://en.wikipedia.org/wiki/Arts\\_and\\_Crafts\\_Movement](http://en.wikipedia.org/wiki/Arts_and_Crafts_Movement) and [http://en.wikipedia.org/wiki/Charles\\_Eliot\\_Norton](http://en.wikipedia.org/wiki/Charles_Eliot_Norton) and <http://wapedia.mobi/en/Romanticism> ]

Today the modern sense of romanticism from Byron to Morris to Semler: I would argue strongly that innovation and invention is fed by imagination and thus modernity is unworkable in that it precludes such development right from grade-school. Modernity’s character may be expressed in several metaphors: (a) in Byronic ideals of a gifted, perhaps misunderstood loner, creatively following the dictates of his inspiration rather than the mores of contemporary society, (b) self realisation and its associates where the psyche becomes a force that extends the body not VV and acknowledges ‘e’ goism, (c) another slant is the idea of flexible specialisation and self-governing craft teams producing whole products say cars as was the case with Volvo (a modern interpretation of the ancient concept of techne) and to an extent (d) radical industrial democracy the case in Brazil with Ricardo Semeler. These four although relevant to this eBook however, especially the last two, are somewhat beyond the scope of this eBook. [Byron 1788-1824; Morris 1834 – 1896; Semeler 1959- so here we see the movement move from 1800 to 1900 to 2000].

**The Romantic and The Mysterium:** my mind, in Western European terms, the mysterium, as interpreted ex cathedra, was in charge of us in medieval times as the Catholic Church so

voluntarily or not we joined its project/crusades/inquisition, in modernity it joined our science first projects viz. space race and war, then in post modernity it died altogether viz. God is Dead.

In Romanticism, however we exist, holonically (and even unknowingly) within the mysterium, within the sublime and our imagination is crucial to chart a course through these unknown waters. As can be seen from the following snippet from Byron's drama where the hero is about to through himself from a mountain peak but is restrained by a hunter. The hero says:

*...Farewell, ye opening heavens!*

*Look not upon me this reproachfully -*

*You were not meant for me – Earth! Take these atoms!* [Bloom and Trilling (1973:Plate18)]

**Romantic Inflation:** Such a romantic surge of sensibility can often lead to flights of the ego. I know this personally. Indeed the lure of such romantic egoism/inflation is recognised and addressed, to varying extents, by all the romantic writers. It may well be Shelly who launches the most persistent attack on it in that he urges that to address this one's imagination be directed outwards and concretised in action towards socio-political reform. Lockridge (1989:332). In this sense then I suggest I may be argued that the Exemplar Project of the Artificer then, esp. the humility and depth such a journeyman's piece generates, is one protection from such inflation to help prevent the 'drift to the interior'. Nevertheless, I submit that, some such ego even a dash of post-rational hubris is necessary for the romantic to sustain themselves and others let alone their vision in today's hyper narrow rationalised consumerist dumbed down world.

**The Romantic Sauvage:** Further I posit a position whereby the direct and emotional nature of perception, together with the embrace of arts and craft, the Romantic genera then is a homologue of the sauvage (different present function though with similar origin). Here we differ from philosophers such as Hobbes who sees in the sauvage an uncivilised human expression of 'red in tooth and claw' even an aboriginal recapitulation of the pride of Satan. Lockridge (1989:47). Whereas the meaning is closer to Rousseau's 'Nobel Sauvage' where **the French word 'sauvage' means 'wild', as in 'a wild flower'**, and does not have the connotations of fierceness or brutality that the word 'savage' does in English, though by the late 18th century the French word was closer in connotation to the English one. **NB1:** the Romantics did not equate passion/the sauvage necessarily with moral they believed that the sauvage needed supplementation and discipline to achieve the moral. For me the Exemplar Project is part of this discipline. **[NB2:** Sauvage may also be associated in Romantic sense with 'enchanted' as in enchanted wild wood where Nature is ever present, e.g. an *enchanted grove* or *mystic mountains* or *sacred river* and is the vitiating principle thereof. **NB3:** Such supplementation would include I suggest: Rather, this article suggests, we need to revisit critical macrohistorical attributes of the global problematique, identify its 7 or so mission critical features, for instance including **Pedagogy**, and like the deep sea diver reveal, retrieve the gold and bring these ancient wisdoms to the surface, rejoin it i.e. synthesise it with other shards and realign it to the contemporary human condition in order to engage its potential to reflect, heal, reveal and deal with our current position. Some other mission critical features could include, I submit: **Oikonomia** (prudential household economy management), **Muruwah** (deep and courageous love based service), **Praxis** (reflexive inner and outer action to build ground up theory and understanding), **Governance** (inclusivity and participation in decision-making), **Spieltrieb** (the Romantics play based drive), **Prohairesis** (Futuring – acting ahead wisely) and

finally (contemplation of, and reverence for, the beyond, the other, our human unknowing, the mystery that is life and thus us); **NB3**: the British Romantic Movement deeply influenced the German Idealism and associated movements e.g. the Wandervogel - the name adopted by a popular neo-pagan movement of German youth groups from 1896 to WWII. The name can be translated as migratory bird and the ethos is to shake off the restrictions of society and get *back to nature* and freedom through rural service, solstice celebrations and sport in order to learn from nature and their Teutonic roots through, of all things, learning circles! Hitler later hijacked some methods for his Hitler Youth. In 1933 the Nazis outlawed the Wandervogel].

Further such indigenous ontology *sauvage* also means **embedded** as in nested i.e. holonic, which indicates **multi-skilled**, and **relational**, i.e. not separate from, not individual as in the West. Furthermore time is circular or **cyclical**, as the indigenous person always lived within the cycles of nature.

Lockridge (1989:65) explicates the Romantics view that **no amount of theorising can ever approximate the impact of impassioned prose and no amount of impassioned prose can ever approximate the impact of a simple loving act or gesture**, e.g. a prostitute aiding a down and out without being asked or expecting anything in return. Here, for me, the Exemplar Project is such a gestural act.

This perspective can be seen in Nisbett (2003) and I quote him recalling a Chinese students comments: *'The Chinese believe in constant change, but with things always moving back to some prior state. They pay attention to wide range of events; they search for relationships between things; and they think you can't understand the part without understanding the whole. Westerners live in a simpler, more deterministic world; they focus on salient objects or people instead of the larger picture; and they think they can control events because they know the rules that govern the behaviour of a part and in particular of objects within that part'*. Nisbett (2003) quoted in Armstrong (2008:8) – adapted PW.

Such an approach then challenges the concept of 'primitiveness' on the basis of conception of time as the Asian races have temporal ontologies most sympatico with indigenous Australians (for instance) – the oldest surviving uninterrupted culture on earth. This can be seen say in the Australian Aboriginal who upon looking at several stones placed in front of him would describe the relationship between the stones not count the number of the stones. Furthermore here we glimpse Paganism and its embeddeness in the cycles of nature and cyclical time cp. linear consequentialist time of the Western and conservative Christianity. Psychonaut – a personal journey of inner self discovery sometimes leading to self-realisation and in this eBook embedded in the journey of the Exemplar Project itself.

**Sauvage I, II and III** – to discuss the *sauvage* in contemporary society does not mean a naive 'hippy' type return to centuries past in a bucolic rustic environment. In this regard we may consider the three phase holonic socio-evolution of the *Sauvage*: (with each phase including, or nesting, the previous one within it):

**SI: Sauvage I** as the innocent child or naive-artificer or authentic Wildman who according to Schiller: 'functions as an undivided sensuous union within a unifying whole. Sense and reason, passive and active facilities are not separated in their activities still less do they stand in conflict with one another. Lockridge (1989:82-83). Indeed as our global society moves from anthropocentrism to eco-centricism, joining with the ecopsyche mandates that

we reflect on, and link to, what animals bring into our lives and what we bring to theirs. It is my contention that the bridge in this regard is the savage (on both sides!!). *Naive or retro Sauvage*.

**III:** as the rational artificer - nevertheless however once our free will has been roused through our rationality our separation within this Edenic existence emerges so we strive for a harmony of faculties greater in kind than innocent harmony. This harmony in Shiller's sense is a harmony that will ever elude us and ultimately our own free will feel more of a curse than a blessing. This is **Sauvage II**. *Contemporary or modern Sauvage (endangered species) praktische erfahrung (practical experience)*

**III:** as the post-rational-naive bildung artificer - now we can take this angst and calm it in nature so to speak however this calm can never be fully curative for the original harmony and innocence of cannot be reattained so now dialectical evolution must instead come through determined moral introspection and fearless, yet graceful exchange, praxis and culture. This then is the Sauvage whereby passion is supplemented and disciplined. And we have **Sauvage III**. See also Lockridge (1989:83). *Post post modern Sauvage*. It is to this third savage (Sauvage III or S3) the one that incorporates the other two that I seek to explore in this eBook series. Here deep experience or praktische erlebnis cp. rational experience or praktische erfahrung is a regaining of innocence or naivety through deep techne and wise experience.

The three Sauvages can be seen as an example of Blake's contraries or even a dialectic that continues not to resolve itself in synthesis. Also in the Buddha's tri-fold path and in the idea that God can be found in the more direct route, one that bypasses civilisation, beyond, beneath, around, through that is the savage beneath.

**The Romantic Sauvage Artificer?** For the Romantics the good society is to be achieved through the 'self-realising-spirit/Geist' rather than the chill duty of enlightenment ethics, so that the 'self' or 'I' or 'Spirit/Geist' is its own object and defines itself through immersion in the 'not self' of the objective world viz. EP becomes a means to self-realisation. This view allows us to explore the Artificer as codified in the Exemplar Project (EP) in relation to the Romantic Project. Lockridge (1989:88-93).

In this view the moral life emerges as an outcome of the continuous striving of the 'individual prudential conscience' towards self-realisation through active vocation in the world (EP), a striving that sacrifices merely private pleasure. Nature for the Romantics is a teleological system that seeks to realise itself in the absolute pattern of the natural organism and that nature becomes conscious of itself through human ego. Ego in turn seeks to express its freedom by actualising it's will with this Natural teleological other in the objective world (EP). Thus the artists/artificers work becomes a supreme act of this Self-realising will, a supreme imposition of an ideal on the real (EP) yet an imposition which, in minute particular, simultaneously fulfils nature as an expression of its own telos. The romantics believed that the consciousness of the artist/artificer/sauvage like all human beings has the same ground with Nature and to look within instead of being slavishly fixed on the object as

object is to produce living form (EP) instead of mechanical reproductions. These 'minute particulars' of living form (EP) are then instances through which eternity may be seen.

Sauvage Mythos (a) – the Shaman Artificer: Artificers in an esoteric sense can be seen to be in touch with primal energies much like the tribal medicine man so to speak. Such 'energy alignments' are prevalent in esoteric medicine today. There is a tradition, of which I am completely ignorant other than noospheric participation, of using altered states of consciousness to explore realms of consciousness and to find one's totem for instance. For instance consider the classic Norse dwarf artificers toiling in the depths of the earth, creating magic craft items. Here one can envisage the Shaman Artificers Exemplar Project as Totem. Merlin is an example of a shaman in our Western European Zeitgeist though I am here envisaging a Merlin with an Artificer turn. Yet Spenser's Merlin did make swords for Arthur and his role as artificer is generally overlooked. In fact Merlin was an artificer magus and prophet in the service of civility. Here we see the possibility of the 'singing or magic tool'.

Sauvage Mythos (b) - The Orc as Sauvage Shaman Artificer: Orc (pronounced /' ɔ rk/) is a word used to refer to various races of tough and warlike humanoid creatures in various fantasy settings. Orcs are often portrayed as misshapen humanoids 'who' are often in origin 'fallen humans' and are brutal, and warmongering, the original bogymen/Neanderthal even. Vendramini (2009) Still able to 'hybrid' with humans such liaisons produce truly *homo horribilis* and in Orc mythology is associated with taboos similar to that associated with our HSapien fear of the Neanderthal bogymen in the dark. Conversely, some settings and writers describe them as a proud warrior-craftsmen race with a strong sense of honour (for example, Morgan Howell's Queen of the Orcs). They are generally portrayed as evidencing certain equality with female warriors achieving high rank.

And also variously portrayed as physically stronger or weaker than humans, but always high in numbers, with access to a 'dark bristling energy' conventional humans may once have known but now for many millennia, have now lost touch with, and which gives them long life of up to two centuries. They have mastered this 'bristling primal natural energy' and use this in their life, loves battlers and demonstrated this as they often ride elemental creatures such as boars and wolves. Crucially, it can be argued that such 'primal el natural' energy is that of life itself the stuff of evolution that is neg-entropic where as 80-90% of the Zeitgeist energy used on the surface of our globe is entropic.

In many role-playing and computer games, Orcs mainly have green skin (earning the name "Greenskins" in such games as Warhammer Fantasy). Usually Orcs use a shamanistic magic. However, their fighting skill is honed to maximum power and efficiency. [see also [http://en.wikipedia.org/wiki/Orc\\_%28Middle-earth%29](http://en.wikipedia.org/wiki/Orc_%28Middle-earth%29) ] In J. R. R. Tolkien's 1955 *Lord of the Rings* fantasy on middle earth, possibly a reprise of Blake's much earlier writings, Orcs or Orks are a race of labyrinthine creatures from middle-earth who are used as soldiers and henchmen sometimes making their own weapons as craftsmen. **NB1:** Middle-earth is where earth is below above and all around one – talk about 'grounded' – I call this 'surrounded by grounded' and coming up from the depths of the unconscious; **NB2:** Orcs can also be seen as race memories even imprinted archetypal memories of Neanderthal

predation. See Vendramini (2009); **NB2:** Further there is some evidence of 1%-4% mixing between Sapiens and Neanderthal genes, and Neanderthals were somewhat of a chthonic night hunting species.

In Blake's opus there is open warfare between the energy of the middle earth Orc's and the surface sapiens of order represented by Urizen, who represents the embodiment of conventional reason and law. He is usually depicted as a bearded old man reaching down from what could be seen as a 'sky king' position with his dividers; he sometimes bears architect's tools, to create and constrain the universe; or nets, with which he ensnares people in webs of law and conventional culture. [Blake (approx 1790) *Marriage of Heaven and Hell*].

I submit, from a position of considerable ignorance, that the Orc may be considered as a mythic being may be seen to represent, in chthonic mythos, the authentic energy civilised humans need to help in the rebirth Eden as the Ultimate Exemplar Projects. Thus the Orc represents a vitality dimension of humanity largely 'othered' by our Zeitgeist i.e. the savage, our and our Zeitgeist's 'othered' grounded selves.

**sa-ga-cious** [suh-gey-shuhs] – adjective - having or showing acute mental discernment and keen practical sense/ability

**Sauvage defined:** *Sauvage is a Way of Being that is candid, uncomplicated, direct, hand-crafted, unforced and unspoiled by civilisation, yet not red in tooth or claw; at one with Nature viz. Gaia, like the wild flowers in the pristine wilderness.*

**School & Training Pedagogy** - schooling and training pedagogy movements claim that unequal graded training /education/work is necessary and that their high-rise hierarchies are necessary to generate an egalitarian society and produce what it needs. In relation to training this is the AQF (Australian Qualifications Framework) system that has eight levels stretching from labourer to Degree – with creative input/thinking not being required on the 'bottom three' and 'citizenship' being required in none.

**Secular** – here used in the following terms of: exoteric, non esoteric, lay, civic, savage, Volk i.e. worldly in these senses but that does not mean simplistic, Judeo-Christian, simple minded, non-philosophic or non-layered. Essentially the term refers to human in cosmos in nature and does not require, but does not deny, a spiritual dimension.

**Techni-Skill redux** - has become behaviour-reductionist viz. correctly performed disaggregated reactive behaviour in the manipulation of a tool in accordance with set algorithmic instructions developed in accordance with some abstract theory - head knowledge. As such skill does not involve synthesis, judgment, uncertainty or artisan commitment to excellence (let alone artificer commitment to interface and whole project responsibility).

### ***The Australian VET Position - historically***

This process of pedagogical instrumentalisation occurred at full blast for the decade from the mid 80's to mid 90's. During this time I was intimately involved with the whole process.

First as the first manpower planning officer of the State Dept of Employment and Training, then as Manager Employment Branch of the Dept, then as Deputy and Acting Commissioner for Training Qld, then as Director of the Employment Directorate. This included my regular travel to Canberra and other states as State Representative on various Apprenticeship, Traineeship, and Employment working groups. During this period I was heavily involved in developing policy nationally and policy and programs State-wise, for the Employment (local demand sided labour market policies – Local Employment Initiatives (LEI)) cp. the skills and thus training and thus CBT based supply sided labour market policies). My natural inclinations and professional training in Regional Economics naturally and strongly located me in the latter, at the same time when the still ascendant ‘international competitiveness’ mantra of neocon economic liberalism was being chanted by the new right and incredibly the socialist left. Ultimately this led to a parting of the ways and I left bureaucratia to join academia – so to speak.

Tragically and in a somewhat bizarre corruption of calling, in the late 80’s and early 90’s Unions were at the forefront of killing this living link, to our macrohistory of technique based apprenticeships through the union chaired inquires into labour market reform that ultimately led to the complete deskilling in the sense of removing technique and its replacement with technique in competency based training (CBT) a vocational education extension of Taylorism where skill becomes simply replicable behaviours commodified into competencies. And as Page (2000:59) points out the CBT method is a behaviourist model that limits itself through its definition of learning as external behaviourist learning objectives and thus learning outcomes as a series of quantifiable terminal behaviours. Again for Page (2000:69) CBT has subject itself to what he calls ‘cognitive entrapment’ in a particular right wing epistemological tradition.

**A Pedagogy of Deceit: Training = Jobs:** Establishing the lie, the elephant in the room about better training = better jobs = better pay!!!!!! And the modernist industrial age obsession about separating skill from context – which in 2010 is at least 100 years out of date. Indeed the training = jobs spin is like the labour market equivalent of Say’s law in 1803, now long dissuaded, that ‘supply creates its own demand’. See also Smyth, Angus, Down, and McInerney (2009:106), Wildman (1993), (1997), (1998). Indeed this approach has been termed the ‘pedagogy of deceit’. Smyth, Angus, Down, and McInerney (2009:43).

#### **Emergence of the Australian National Training Reform Agenda (ANTRA):**

In the late 1980’s and early 1990’s the liberal economics, or neocon economics, of markets first was sweeping the globe. Already the argument for a globalised economy inc. trade had been won and within this nexus ‘human resources’ inc, education were seen as critical components of international competitiveness. So terms like ‘upskilling’, ‘competence’, ‘economically related R&D’ and ‘new global economy’ were and indeed are, some generation later, still in the ascendancy. Authors such as Porter (1990) and Drucker (1993) emphasise the link between knowledge and productivity – the emergent knowledge economy – and this link in the information age, is seen as pivotal for national economic virility and international competitiveness. This was the epochal work into which the restructuring of the West’s educational and especially training systems nested, as we can see from the following in reports for instance in Australia. Peters (2006:269-270).

The Carmichael report into youth unemployment turned into machine labours vision for vocational education <http://www.greenleft.org.au/1992/61/2932> Green Left Weekly issue #61 1 July 1992, in an article by Peter Boyle, entitled - Carmichael's 'final solution' for youth unemployment'. Consequently, to my mind Carmichael effectively betrays the voiceless Australians it had set out to assist quotes the Carmichael report, in sort Training ≠ Jobs but it does create an industrial reserve army of youth for industry. A process that kills our youth's and our future and we have been doing this now for a generation.

The article quotes the Carmichael report which it says stridently demands:

*'All people are required to meet the demands of a changing technology, the needs of delivering a high quality product or service in the market, social and service expectations and, in particular, organisation. Training must be competency-based. **Training must be responsive to industry and enterprise needs and be industry and/or enterprise driven.***

*'For [Australia's] external payments and debt balances to be redressed effectively in the medium term, there must be a progressive transition to a more internationally open and competitive economy ...The training agenda is a necessary part of national micro-economic reforms to **make Australia more economically competitive.***

And the 1991 Finn Report <http://www.greenleft.org.au/1992/70/2520> , set the stage for the Australian Training Reform Agenda which incorporated CBT and Traineeships. [both sites accessed 04-2010] All this in parallel with the abolition of the Colleges of Adult Education of the Whitlam era and their absorption into the mainstream University system with the icing on the cake during the early to mid 1990's of the trenchant triumph over the Local Labour Market Initiative movement which embodied a stronger connection to community and techne, for instance in NAGLEI (1986), (1987a, b, & c), (1988).

So by the mid 1990's the very bodies charged to protect workers' rights, the Unions, had usurped and commodified the workers, their rights and training as well as pushing out their one viable alternative or companion. This was at the same time that the General Agreement on Tariffs and Trade was signed and globalisation or global instrumental/formalist economics was being introduced worldwide in the so-called developed nations. The key requirement therein was an 'internationally competitive workforce' and CBT writ large was going to give Australia just that.

In turn this process engenders a passivity even invisibility on the part of the learner to the curriculum, and involves the assumption that knowledge is unidirectional and finite and can somehow be measured as a series of factual building blocks externally manifested.

**Crucially Competencies and Training Packages are Retrospective:** That is they are training packages to develop skills that are needed in extant processes. These extant processes can be up to a decade in the making in that the need for a change in callings can take a decade to get into a training package and then of course the industry has moved on. In this instance from the time that a calling for Automotive Engineer (diesel fuel injection) was recognised it took a decade before the actual calling was in place in a TAFE apprenticeship course. The period was to from mid 1980's to mid 1999's in Qld – I was deputy Commissioner for Training and chaired the industry committee (ITAB) late in the

stage when the calling was coming on line. The delay was that the committee only saw diesel as suiting large trucks not domestic vehicles. CBT is only ever reactive deeply so further it is external never internal that is it by its behaviourist design is structurally unable to engage creativity or inner reflexion. On the other hand it does have some good points in that if you can do the job then you should get the qual – so that, in theory at least, text can be bypassed.

**The Failure of Training in General and CBT in particular:** In many ways focusing on the failures of the ‘so-called’ instrumental agenda such as the Artificer can blind us to the even more depressing failures of the ‘so-called’ up-skilling and higher education agendas. As Schumpeter, that great apologist for capitalism, said in 1942 the expansion of higher education beyond labour market demand creates for white-collar workers ‘employment in substandard work or at wages below those of the better-paid workers’ Crawford (2009:129). Further Gorz (1980) suggests that 80% of work, both white and blue collar, a today is in a strict sense of the word and need of the deed unnecessary.

In this section and in my first eBook I have spoken about the spin of ‘get a skill and get a better job’ this is simply a lie and speaks to the betrayal by government of our young people. It is the aggregate demand for employment that determines employment not the supply of yet more skilled folks whereby employers simply use credentials to rank applicants thus contributing to credential creep ultimately leading to what Schumpeter speaks of above.

I submit that the majority of white collar work today is both unnecessary and even worse indicative of what Marx calls ‘estranged labour’. This is not to justify physical sweat shops for servile manual labour or the brain sweat shops for compliant call centre folks at all. I am just seeking to raise the issue of the critique of the ‘other side’ of the labour market divide.

Clearly as can be seen from the above and the immediately following sections – CBT has not worked at the performance level where jobs require vastly more than simply reductionist behaviour, pedagogically in that the separation of thinking and doing and its reduction of the TAFE and School to an annex of the economy has eliminated citizenship, critical and creative skills from the curriculum and epistemologically as the separation of thinking and doing simply continues disadvantage and perpetuates the ‘deficit’ model of schools and students while ignoring the broader epistemic and philosophical issues and empowerment possible in the surrounding community as the place context of learning.

The time has come to give CBT the flick and replace it with capabilities which include the lived life of the student the job context the ethics of the employment and social contracts/indenture and so forth. The real question is how could it ever get this bad? How so much could be spent even wasted in developing a Vocational Educational System that effectively derailed and destroyed the very things it set out to do?

Australia’s labour market like other Western nations is experiencing long term fluctuations in sympathy with the principal economy and especially in relation to the decline in the physical economy, as well as rapid increases in part time and contingent work, the so called McJobs jobs – all low skilled – craft-less fringe dwelling utility labour module workers, often located in third world countries. We now approach the inverted 80/20 labour market

where as an inversion of the immediate post war years nowadays 80% of the labour force undertake largely contingent and outsourced and piece-rate work for the 20% of the elite professionals. Traditional labour market entry points for youth have evaporated and unlike the lie that training = jobs it is now and always has been ones class, gender, and race that most determine ones labour market prospects. Smyth, Angus, Down, and McInerney (2009:105, 107). Nowadays I argue that Voc Ed cannot be separated from the 'habitus' field of neocon market ideology indeed an interlocking ideological assemblage.

Pedagogists such as Forrester (2008:212-213) recognise the failure of CBT and recommends reconstruction of Voc Ed to now include: (1) lived life of the apprentice/student, (2) integration of learning (thinking) and work (doing), (3) orientation around practical training, (4) tacit knowledge, (5) relationship to the job, the project and work colleagues, and (6) Life Long Learning, not quite including ethics yet and still a long long way from the Artificer, however we are getting closer and closer to a system that broadly was in place prior to the CBT debacle of the past generation which we have gladly wasted so that thousands of bureaucrats could retain their jobs and Australia could become 'internationally competitive'.

Nearly a generation ago I was one of several author's recommending a move from CBT through Competence to Capability. Stephenson (1999), Wildman (1995) and Wildman (2010b).

**A long silenced voice in labour market programs - Local Employment Initiatives:** This was the discourse that had some traction a generation and a half ago in the late 1980's with NAGLEI (1987a). Now that discourse, and its proponents, have been totally sidelined, silenced, discredited and buried.

This whole side track journey has absorbed billions of dollars and totalised the employment and training field silencing alternative and parallel job creation options such as those to adapt to structural unemployment and to address regional and local labour market needs e.g. the Australian National Working Group on Local Employment Initiatives. NAGLEI (1986), (1987a). Wildman (1997), Smyth, Angus, Down, and McInerney (2009:105-107).

**Community of Curriculum Praxis:** The curriculum process outlined in the previous section effectively precludes any sort of inner reflection, collaboration, praxis, open-ended questioning, innovation or shared ownership of the curriculum especially in the sense of say a participatory even 'co-creative community of co-creative curriculum inquiry, practice and ownership', in short a life laboratory, or **Community Of Curriculum Praxis (COCP)** for short, which can act as a plexus between the practical and theoretical dimensions of, in this instance, the Artificer in the context of the lived life glocally of the Apprentice Artificer/student. See Page (2000:66).

**Slow Schools:** Indeed we could even posit here the relevance of say 'slow schools' as part of the global slow movement. Here students work on common projects at their pace within negotiated boundaries and timelines with teachers as Apprentice Masters even! The projects would be negotiated and integrate thinking and doing, theory and practice, academic and vocational skills and be collectively respond to the challenge: How then

should we learn to live together today in order to demonstrate that a better world is possible for our children and their world tomorrow?

### **Techne - facets**

**Techne- tool - the singing tool - hand wisdom** (the machine as an extension of the human – skill here is defined as how we use our hands to harness the biophysical resources of Gaia for the betterment of all) - may be distinguished from episteme (knowledge) and technique (wisdom of the machine – the human as extension of the machine – skill here is defined as how effectively we tend the machine). As articulated in my first eBook in the section on ‘The Singing Tool’, The Greek word *technê* (literally: craftsmanship) is often translated as *craft* or *art*. It is the proactive rational method of understanding and operations used by the craftsman in using mental and manual dexterity in producing an object or accomplishing a goal or objective - heuristic. The means of this method is through art. Here techne represents the connection between skill in the narrow sense of performing a piece of work and the lived life of the worker. This is where the ‘living wage’ has a home where the worker not only combines his or her skill with their own job but also with their own lived life in the broader society.

Techne then resembles episteme in the implication of knowledge of principles, although techne differs substantially from episteme in that its intent is human making or doing, not simply disinteresting understanding or reflection. Techne here may be seen as human agency inc. skill, judgment, planning, ethics, kairos and so forth, applied through the use of a tool in participating with and in nature viz. the participatory principle Levi-Strauss (1966:38). Technical artistry comes close, and contains the view that as such it is more than instrumentalism and contains an element of the ‘search for truth’ truth through embodiment in Nature rather than instrumental appropriation from Nature (as at present).

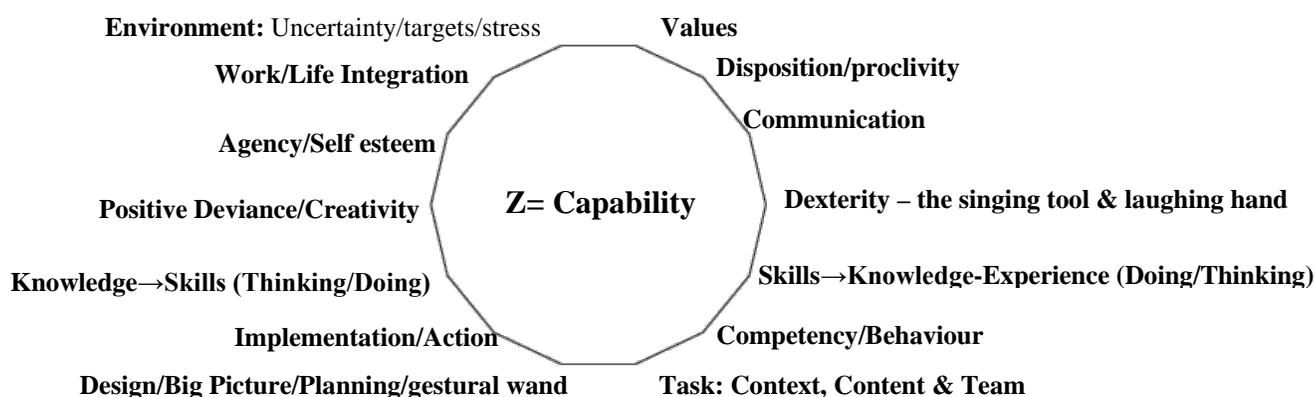
**Techne- Chiro - the gestural wand – Chiro computing** - here in meta-computing the hand has been found to have six degrees of freedom and establishing a direct interface between the hand and the computer is a vital component of this evolution. First developed a generation ago at the world famous MIT media lab development of this chiro interface has been, in my opinion, violently suppressed by the likes of Apple and Google with their text based and then menu driven systems. See [http://www.fastcompany.com/1658964/the-genius-behind-minority-reports-interfaces-surfaces-with-mind-blowing-new-tech?partner=homepage\\_newsletter](http://www.fastcompany.com/1658964/the-genius-behind-minority-reports-interfaces-surfaces-with-mind-blowing-new-tech?partner=homepage_newsletter) .

**Techne – skill – from competence to capability** – as discussed in Wildman (1996:) and elsewhere in this eBook competence is an extremely limited concept that needs to be expanded in depth and breadth into a concept such as capability. Here individual competence at skill performance/behaviour becomes one of some 14 attributes necessary for capability as an ‘capiatalised’ techne as it were.

Here capability significantly redresses the feminist critique that skills are ‘men’s business’ (skills) and thus deeply recognised and regulated whereas ‘talents’ (proclivities) are women’s business and not recognised or valorised. And we may also dare to distinguish after the French approach of three types of knowledge: *savoir savant* - knowledge academic/learned; *savoir enseigne* – knowledge taught/trained; and *savoir sauvage* – knowledge wild/wild

knowledge/street smarts/knowledge from the ‘school of hard knocks’/experience etc. Anglophone pedagogy does not easily identify nor embrace these distinctions (dexterity).

**Figure 2: Focus on Z – Personal Capability – 14 factor model – Tetradeagon**



Source: P Wildman (1996: Figure 2d; pg9 extended version).

**Techne – prohairesis – futuring - acting ahead wisely** - as discussed in this eBook futuring or acting ahead wisely or prohairesis (with phronesis) is a crucial intent/outcome/perspective of Techne.

**Techne - Chiros and Chiro – Zeitewig Handwerk – timeless handwork**

Learning in this eBook series is seen as something more than just being a subset of class struggle or the capitalist rampage. Nor is it seen as just another subset of gender relations or exploitation, or plunder and manipulation of the workers by the power elite via. bureaugogy and other faceless white and often dead men, relevant as these clichés are.

Learning in this eBook series as Life Wise Learning is essentially Chiro based Experiential Learning distilled through the Artificer Learning Logic Base as techne. This ‘techne’ represents third, and deeply ancient, path in a tripartite approach to learning that triangulates between Vocational Ed – behaviourist (most brawn little brain) and Academic Ed – noospheric (mostly brain little brawn) that retro-links to our deep evolutionary past and path in Chiro Ed viz. chiro-dexterity and thus chiro-pedagogy – ‘the hand maketh the (hu)man’.

Again this type of chiro based critical experiential leaning is not a domesticated shadow of critical struggles against oppression exploitation and inequality. Rather it is a form of what may be called Zeitewig Handwerk – practical timeless hand work. We see here the two ancient Greek conceptualisations of time **Chronos** and **Chiros** while the third word discussed in this section **Chiro** is also Greek.

Here the Bush Mechanic/Artificer may be seen as a **Volk Zeitewig Handwerker** as one who integrate indeed marries Chiro with Chiros. A key example of this marriage, to my mind, for instance, in Christianity is seen in 1Cor3:10-17 where we see the blending/intervolving of the three concepts of: (1) Chiro and (2) Chiros in the third concept a relational one, (3) our two-way relationship with god/God/Godhead/our Ground of all Being etc. through (1) and (2).

Chiro – practical hand action and Chiros – an esoteric concept of time concerned with value and quality rather than quantity cp chronos as in chronological as in humanity's time – scientific ratiocinate Western Enlightenment concepts of reason. Here I posit a link between chiro and chiros that is an exoteric concept that involves practical hand action with transcendent quality and value or timelessness. **NB: Chiros** can also be spelt **Kairos**. **Zeitwig** – literal translation is time-forever.

**Technelect** - someone with a high level of hand knowledge even hand wisdom someone who can Artifice

**Technifact - Artifact** - commonly yet somewhat incorrectly called artefact refers to any object shaped (often by an artificer applying a tool) to some interactively developed conception of the required form. Artifact commonly called Artefact.

**Technefact - Artefact** - refers to any object shaped (often by a tool where the shaping is largely discrete from human intervention) to some pre-existing conception of the required form, also known as Artefact.

**Techni-literacy** - literacy of technology in the formal sector science and industry

**Techno-literacy** - literacy of techne within the informal sector of the home

**Technique - operativeisation** – operator's labour \$20/hr+\$5/hr oncosts=∑\$25/hr  
Aust 04-2009 - **technique without agency – in service of the autonomous tool – where the lived life of the technician no longer relates to his actions as a machine operative except in that he must be present for his shifts to fit its requirements – modern man is neither hands on, hands free or even thoughts on, he has become separate even non techne participative (no participative consciousness here thankyou were postmodern!) - an 'instrumental' operative with his machine acting objectively on 'spiritless matter' – as technology becomes mindful it renders us handleless – as we become handleless we become personless and ultimately selfless, just try having a discussion sitting on your hands -** a precise method or algorithm, for applying objective science based external objective knowledge of and skill in the application of that algorithm of operating technology by reactively applying tool, materials and skills to assemble directly a requisite article whose beauty and function have been externally determined by others. [*e.g. sequence of assembly*].

**Technique I - experimentivisation** – craft labour \$100/hr+\$40/hr oncosts=∑\$140/hr Aust 04-2009 – **as in manuary (artificer) techne ~ is about the use of the 'tool of tools' i.e. the hand in the awakening of our agency and thus our sense of self, out of the mechanism of technique. So that the hand makes our human agency more aware of itself and can, unlike the eye, reflect on itself. Tallis (2003:31,40). In technique we have the concepts of agency, self and the constellation of – techne, touch, dexterity, design, intention, manuary and artificer..... To be touched is to awaken to consciousness and to be prompted to possible action. Here the hand like language makes infinite use of finite resources yet remains indeterminate. Indeed research shows that intelligence develops in parallel with this type of techne rather than visuality.** A craftsman's method or heuristic, for applying inter-subjective science through understanding, experience and skill in the

application of that heuristic to the 'Design process by interactively applying tools, materials and skills to artifice or shape directly a requisite article of beauty and function. [Technique is a PW word and counterpoints Technique]. Also see Makashini Magazine (Finish) <http://www.kaapeli.fi/eko.fi/magazine/dependence.html> .

## Technique II - Hand Labour: international comparative hourly rates

Skilled machine operator – technique:

**Vietnam** – operator's labour - \$00.20/hr+\$00.05/hr oncosts= $\Sigma$ 00.25/hrAUD 2006 figs

**China** – operator's labour - \$01.40/hr+\$00.10/hr oncosts= $\Sigma$ \$1.50/hrAUD 2006 figs

**Malaysia** – operator's labour - \$02.5/hr+\$00.25/hr oncosts= $\Sigma$ \$02.75/hrAUD 2009 figs

**Australia** – operator's labour - \$20/hr+\$05/hr oncosts= $\Sigma$ \$25/hrAUD 2009figs

**US** – operator's labour - \$18/hr+\$07/hr oncosts= $\Sigma$ \$25/hrAUD 2006 figs [Act. is \$18.20/hr + \$8.40/hr oncosts = \$26.60/hr]

**Observations:** (1) Aust and the US have similar labour cost structures.

(2) Vietnam's labour cost is 01% of Australia's comparative hourly rate

(3) China's labour cost is 06% of Australia's comparative hourly rate

(4) Malaysia's labour cost is 11% of Australia's comparative hourly rate

(5) So \$1AUD buys 2.5 mts labour in Aust and the US and 20mts labour in Malaysia, 40mts labour in China and 4hrs labour in Vietnam. Source: Barr (2008).

**(6) Critically and incredibly for me, Barr's work argues convincingly that when considering oncosts and other hidden costs such as transport and compliance that American (and thus I argue Australian) manufacturing is still uneconomic even if no labour costs are included.** Barr (2008).

## Technique III

### Techne IIIa - the artificer ethnomacist

One key implication here is what may be termed 'ethnomastics' or ethical economics whereby values are mapped into and onto ones action space viz. individual and community/collective. I submit that Community Economy Development is one manifestation of ethnomastics. We live in a world that's resource-constrained but ingenuity-rich so why not embrace the artificer the ethnomacist?!!

### Techne IIIb - the artificer Hard Labour for Craft Labour: Implications for Economics, Innovation and Training

#### *The seven deadly sins of Craft Labour*

(1) Clearly from this analysis supported elsewhere in this series, craft labour is no longer economic in Australia or for instance the US

(2) And in turn this knocks on in a macro impact on the viability of the overall economy in terms of its physical economy in that the physical economy which situates craft labour, as a whole, is no longer economically viable in the US and Aust

- (3) The physical economy is rapidly being exported holus bolus to third world nations
- (4) Further and most tellingly, in my experience, craft labour is no longer innovative as for instance domestic building systems remain essentially unchanged for the past century and still use craft labour, and the training programs are not about innovation rather about competence to undertake certain behaviours as well as huge compliance loads
- (5) The AQF framework has the bottom two levels AQF1 and AQF2 labourer type occupations as not requiring any innovation/creative thinking and little if any innovation is included at AQF4 (typical Trade qualification) and AQF5
- (6) Therefore innovation in Australia won't come from the craft arenas nor will cost effective outcomes to even existing design challenges (to which craft labour has not contributed)
- (7) Craft Labour has lost its vertical articulation/upward link as Master Tradespersons are eliminated and replaced with management quals, and horizontal links become ossified as trades become silos.

### **Technology Transfer (TT)**

A crucial issue in the process of constructing an Exemplar Project is TT, techne in the sense that it includes more than technological skill. Techne includes the integration of the human and the tool as well as 'walking ones talk' that is personal ethics as well as in the Artificer sense understanding and enacting the ethical progression from 'do' to 'is' to 'be' an Artificer. A particular challenge for any would be bushy is when working with a bushy on an Exemplar Project over a period of years is to come out of the process learning something not just being a spectator or a so called 'gofer' that is with TT, in the sense of (1) familiarity with work tools and (2) in close work skills associated with these tools then as (2) broader picture decision heuristics in the use of which tools and system diagnostics to determine what issue needs to be addressed and then (4) experience in the EP's operations and potential all within the context of an ethical praxis (5) i.e. walk ones talk as a global citizen i.e. techne in its broadest sense.

**Technifice** - as technifice - the process of the use of technology in addressing a particular issue/problem/plan.

**Technefice** - as artifice - the process of the use of technology.

**Technical** - According to principle or 'join-the-dot' type instructions; formal rather than practical - competence e.g. a technical advantage - rules for tool use - algorithm - objectified and externalised knowledge as in 'technical drawing' or drafting. Ingold (1993a:433-434). [*e.g. the assembly instruction sheet*].

**Technecal** - A heuristic process of bringing forth or artificing articles of beauty and function through the interaction of the: crafts person, materials, Design, customer and the experience of artificer in the interaction of these over the years.

**Technician** - someone who knows the rules for tool use - someone who is technical. [*e.g. you as the chair assembler*].

**Technecian** - someone who is an artificer a bush mechanic.

**Technilect** - commonly called a nerd - someone with a high level of ability to navigate, use and interconnect technological gadgets

**Technology I** - has become a mode of human existence commodified, objectified, externalised, formalised and commercialised. Technology may be defined (by Reynolds) not only as a system of objectified mechanical or social organisation principles that intervene between the wider structures of society and the tool-maker and tool-user in person, in short the sum of the ways in which social groups provide themselves with the material objects of their civilisation. Lyotard (1984:4), Reynolds (1993:343). 'Tool' here has to be understood broadly to include a physical object such as a screwdriver, hammer, tape measure etc., as well as a social process and its associated phenomenon such as money/transactions, democracy/elections or bureaucracy/regulation. There is, then, a substantial differentiation between seeing a tool as object-manipulation – figuring out what to do/needs doing i.e. a puzzle-solving exercise requiring intelligence and technical skill; to seeing a tool as requiring technical artistry or *techne* i.e. the actual doing of the exercise. Wynn (1993:340). Indeed skill for Ingold (1993:344) is an index of personal identity V's the plan or V's the \$ or the Exemplar Project.

**Technology II** - is a word with origins in the Greek word *technologia* (τεχνολογία), *techne* (τέχνη) 'craft' and *logia* (λογία) 'saying'. It is a broad term dealing with the use and knowledge of humanity's tools and crafts. [*e.g. the sophistication of the tools and instructions (mechanical V's electrical drill etc.) needed for assembly*].

**Technology** - a counter point mode for human existence based human skill and informal power structures. Technology may be defined as the heuristic interactive a posteriori embedded practical heterotechnic knowledge forming the logic for 'logos' of artifice and acting ahead wisely to shape requisite articles and processes of function and beauty for the benefit of our children's children. In these senses then technology is pre-technological (also called 'vernacular technology' or 'folk technology' although these technologies are more directly limited to the minutiae of everyday life such as pots and pans).

For instance Heidegger's (1977) view is that technology is not only 'an instrumental' means to an end' as it is usually understood. Its essence is 'to reveal the truth' or the being of the world as we embed ourselves in the world through the use of our technology a different approach to us appropriating the world to us. This is the meaning of the ancient word *techne* was understood in Greece. However, we lost this meaning in modernity, and focus nowadays more and more on the other one of technology as *techne* as a means not an end. Thus everything becomes to be understood as resource for humans, essentially without any purpose or intrinsic end-value of anything. And humans ourselves thus become just a special kind of resource for this technology of ours - we become our own Frankenstein, something else to be understood as resource, in an endless chain of resource transformations, natural diversity absorption and technological diversity emergence, and entropy generation with no inherent purpose, without any value as human per se. According to Heidegger humans must become anew aware of this lost meaning of the essence of technology 'to reveal the truth' of the meaning in technology. Wildman (1976).

In Ecosophy, possibly eventually technique could form part of 'deep technology' which in turn may well draw from a Deep Science - a moral, aesthetic, and practical science that adjusts itself to culture not VV. Too many deep ecologists single out technology as the villain. But hiking boots, clothing, food, maps, writing--all this stuff is technology too. We cannot be human without technology. And technology, if it is successful, can bring us closer to nature, not further away. Technology a technology for 'rewilding' See also Wired Magazine: <http://www.wired.com/wired/archive/3.10/rothenberg.if.html> for an ecosophy perspective & [http://www.social-ecology.org/harbinger/vol2no1/bookchin\\_5.html](http://www.social-ecology.org/harbinger/vol2no1/bookchin_5.html) for a social ecology perspective. See also 'Wild Futures' or Futuring viz. Grey literature and Piagets view that 'learning follows action and has no other origin'; that creativity and success in scientific theorising requires a practical problem solving which is based on reasoned randomness, guided guesswork active experimentation and learning from the outcomes; Knowledge which cannot be used is not knowledge at all; We learn best when we learn with and from each other.

In the private sector the term is occasionally used to describe a high-tech workplace and high-touch workforce management system e.g. a Volvo production line where groups of employees produce sub assemblies of the whole car, or US Toyota production line where employees practicing TQM (Total Quality Management) and although only responsible for a particular screw say can stop the production line if they notice something out of place anywhere on the chassis so far Schifferes (2007), or call centre where the high touch means high levels of customer contact. Nasbitt (2001) extends this by seeing the high touch in relation to our search for meaning not in the type of technology, so although presenting some initial interest this approach remains firmly within the status quo concepts of technology and development. Another approach is that

**[Counterpoint technology:** Today's Deep Ecology movement and some parts of the Social Ecology movement regard technology as an evil force, something alien to the natural world, loosed almost by divine mistake on this planet. These new energies are not regarded as legitimate expressions of sentience, universal life-force, or granted the respect we accord to 'natural processes', but rather as something wrong, something to be controlled and repressed. Deep ecologists seem to have the same fear and loathing toward today's out of control technology as humans have had until just recently toward uncontrolled Nature, with her savage, untamed wastelands. They call technology inhuman, cruel, and heartless, using the same words we once used to describe *cruele wilderness*-and like humans of the 19th century waging war on wild nature, environmentalists today long only to conquer technology, to subdue and control it, as we have nature herself. Nevertheless the world of technology, cultural behaviours and abstract and concrete symbolic **structures such as technology are likewise built out of, on top of, and into human brains, emotional drives and bodies**. This is planetary symbiosis at work. This e-book seeks to address these concerns without abandoning technology thus the concept of technology].

**Technological** - from theory to effect - a priori. The logic of out-workings of (abstract thinking) disinterested reflections on 'T'ruths. Of or relating to a practical subject that is organised according to the logic of scientific principles e.g. 'technical instructions'. A technological utopia may be seen to be in part the 'smart house' writ large. [e.g. *the completed chair including the materials and tools and parts and assembly instructions*]. Technology then represents a scaffolding for further advancement of the mind cp. body possibly towards a singularity.

**Technological** - from effect to theory - a posteriori. The logic of the participatory principle cp. disinterested reflection on universal 'T'ruths. A seldom used and little recognised word effectively coined by Paul Wildman and occasionally used to refer to archaeological finds as 'carving technology' where the intent of the artisan is inseparable from the use and effects of the tool. A technological utopia may be seen to be in part the cathedral communities of the Middle Ages. For example a fighter pilot who buys a glider or ultralight for weekends moves from technology to technology. Much DIY work is in the technological category and is in heritage more from the French 'bricolage' than from the English 'equivalent' of 'handyman', part of a participatory consciousness or ethos. The exemplar project is technological cp. technological. Now the tool sings and dances in the hands/harmony with the artificer. [*e.g. not buying the Ikea flat pack but making a chair oneself*] (PW word). Technological represents a scaffolding for further advancement of the body el ar nature cp. mind possibly towards a mutuality.

**Applied Technology - the Bushy as Entropy Jockey:** The application of technology is designed to **contain and constrain entropy growth** and ensure that the flow of resources, through and within the economy, is as nearly non-declining as is permitted by physical laws, through the:

1. Use free energy system 'income' as far as possible viz. solar, geothermal etc.
2. Strive for the most efficacious resource productivity inc. reuse before recycle
3. Amplification performance with each cycle of use
4. Employment of 'income' rather than 'capital' sources and continuously reuse and recycle non-regenerative resources.
5. Affecting of an '**entropy constraining**' even '**entropy castration**' unbroken, closed-loop flow of matter and energy in a planetary productive infrastructure conceived as a whole.
6. With strongly developed 'yin interface technologies' based on entropy castration
7. Control leakages and avoid stagnation, misplaced concentrations or random diffusion of chemical elements during cycles of use
8. Denomination of local currencies and superannuation and labour and value beyond money

**Technics** - the theory, principles and study of technology.

**Technecs** - the theory, principles and study of technology.

**Technorati** - techno-hierarchical nerds.

**Technerati** - artificers, mutualist nerds.

**Technomorphism** today we see anthropomorphism devolved to more of a narrow technomorphism where the world is interpreted from the perspective/lens of human technology, gadgets etc., based on a discrete objective consciousness, whereas this book argues for a:

**Technemorphism** where the world is interpreted from the perspective of the interactivity of humanity (consciousness) and the world around us. [extensions of this view are

physiomorphism where the world is interpreted from the perspective/lens of the natural world - a version often found in indigenous cultures, and cosmomorphism there the perspective/lens is that of the cosmos] In all instances these are forms of participatory consciousness or after Levi-Strauss (1966), Clayton and Opotow (2003) what may be called atavistic 'wild science' from the 'savage mind'. In this sense technomorphism draws more from physiomorphism than anthropomorphism - examples of the former include gardening, cooking, sewing, engine building etc., the danger is as ever that it degenerates into a mechanomorphism where the universe is seen from the perspective/lens of the machine.

**Technopolis** – a social, a city built on techne-ology cp. to current trends towards the technopolis. A chiro-polis built by hand – a view of reality even an ontology that develops outside of philosophical logocentric thought only.

**Technopolis** – a social, a lococentric city built on techno-logy with its associated technocracy and technocratisation even a bureaugogy even technocratic bureaugogy or bureau-techno-gogy.

**Technosphere** - Nature/culture/technology - see artificeosphere - culture absorbed into Nature

**Technosphere** - technology/culture/nature - nature absorbed into culture

**Technosophy** - the philosophy of technology links to the philosophy of science

**Technosophy** - the philosophy of technology links to ecosophy

**Tensegrity** - a structure where its integrity is maintained by a dynamic balancing of simultaneous contraction and extension forces - e.g. a reinforced concrete beam in a bridge, the operation of the agonistic and antagonistic muscles biceps and triceps for instance.

**Textacy** – is (yet another) neologism I have coined to represent the dominance of noospheric forms of denominating and valorising and assessing pedagogy especially in Western esp. Anglo Saxon countries' Erziehungsroman. Here we see, especially in Anglo Saxon schooling (UK, Canadian, Australian, US), the fall and fall of oracy and the rise and rise of what I call 'textacy'. In French and especially in Russian schools Oracy is 'The primary form of assessment- in our schools it is all but ignored. There are a range of reasons for this, mainly to do with the totalisation that noospheric considerations have gained in the Western, and in particular in this instance Anglo Saxon, pedagogy. See also Alexander (2001:368-374).

**Thinkering** – a neologism from tinkering i.e. from Bricolage – acting with wisdom. See artificer.

**Tool - technical and technecal conceptions** - a contrivance held in and worked by the hand, for assisting the work of (especially) mechanics, artisans or labourers in directly impacting concrete reality/physiosphere, also called utensil in domestic applications - pots and pans nonetheless. Tools can be weapons and vice versa. Ultimately tools can be for

instance weapons systems. In this broader sense tools include those things and processes that bring people together or drive them apart i.e. conviviality. For instance a shed can be considered a meta-tool that brings people together in a convivial relationship towards some social technical end.

Tools can also be conceptual/noospheric as in for instance Gantt charts for project management, learning, school systems, process management and ultimately even language. Tool-designing, tool-making and tool-using (TDTMTU) involves cooperation, imitation, learning, teaching and even kinship relations, so these are inextricably connected with personhood and sociality and indeed the longevity of the group and its culture. Further TDTMTU generates individual and collective knowledge and in turn represents the crystallisation of such knowledge. So that tool and its use viz. techne represents in part the acquisition of personhood and tribe belonging and thus acquisition of meaning in the process of socialisation. Tallis (2003:232).

Tools as related to this topic are those that link the physiosphere and noosphere in a win-win convivial technical manner. In this sense the tools (Allen key, screwdriver, wood glue, paint etc.) are supplied in say a table flat pack are not considered technical but rather technical as basic assembly only, no design, is required.

Through tools we become simultaneously holonically a part of, and apart from, Nature.

What differentiates us from the nearest tool-using primate the Chimpanzee is that tool-use for humans is a social activity based on complementary relations between the hands and the possessors of those hands. Whereas the chimpanzee tool use is the incorporation of the objects into single individual whole-body locomotive skills. Tallis argues that even mimesis, and I submit emulation, does not occur with primates other than Homo Sapiens. Tallis (2003:272).

**- a socio-anthropological approach to tools** – as we get to more complicated tools say in the Neolithic period the notion of a tool becomes increasingly complex and its boundaries more misty. Tallis (2003:254) has agreed with Gibson and Ingold's (1993) and I am in general agreement with both see bracketed suggestions (PW) below, suggested definition: 1) A **tool may be defined as** an object that extends the capacity of (the hand of - PW) an agent to operating within a given environment, 2) An **artefact may be defined as** an object shaped to some pre-existent conception of form. Not all artefacts are tools and not all tools are artefacts. For instance cake is an artefact and not a tool, a stone pebble used as a paperweight is a tool and not an artefact.

**- a technical approach to tools** - sees the tool as discrete to its human use and ultimately takes the human completely out of the loop - this removing human wisdom at the point of application/worksite. Hand knowledge is replaced with the human tending the machine.

**- a technical approach to tools** – hand knowledge - would generate renewed emphasis on tools as extensions of the hand V's head as is the case today e.g. today's robot assembly line - worker as extension of the line (Taylor) V's Volvo's techne group based assembly line (line an extension of the worker) or Toyota's Georgetown Kentucky plant where the Total Quality Management approach means the workers manage the line, and the overall product i.e. the car is the exemplar project in that any worker can stop it if a quality

issue/loose screw is spotted and they do in the US stopping it (2000times per week) 1000times more often than their neighbours at the new Ford Truck plant at Dearborn, Michigan.

Indeed a triumph for lean production a unique combination of ‘high tech and high touch’. Schifferes (2007), Womack and Jones (1972). This distinction can also have some ‘bad’ side effects when for instance in the Air NZ case when an Air NZ flight hit Mt Erebus killing all on board in the early 1980’s. Mahon (1985). Yet everything on the jet was functioning perfectly it’s just that a technical approach was being used and the auto-pilot was switched on where as there was big rocky thing sticking up called a mountain which is what the passengers were going to see in the first place.

Yet even the Royal Commission never even considered whether the pilot should have been looking out for big rocky things sticking up - never - they never asked the techne question rather it remained a technical one and it was found that the flight co-ordinates were changed without telling the pilot by Air NZ HQ immediately prior to the flight. Clearly in this instance it was not a technical fault rather a politico-process-technecal one. Techneque allows a certain agency for the operator and as such is a challenging protocol in training as training is about competence not agency. Techne also places a huge emphasis on whole system tools, interface tools and system integration tools. In today’s largely dumbed down society techne is dangerous and techni-skill is one of two remaining cards in the deck, the other being completely autonomous systems. Largely missing with today’s skill related approach to tooling

**3 Tool Type universes** - Tools can be conceptualised in terms of three ‘use universes’ or paradigms for instance:

**(1) Tools for centralised** industrialised mass production i.e. the production line. These tools are to be ‘operated’ often by expert CAD CAM operatives, doctors or dentists for instance. Here we see the increasing professionalisation of production. *These tools* are ‘deployed’ in hierarchical bureaucratic power over silo systems of social control and exclusion [producing useful things for useless people/consumers]. Power tools in this sense don’t mean only electric drill but also a school system.

**(2) Tools for serfdom** i.e. work in the sense of labour here we have the idea of work as travail as with the mother giving birth – tools here have to be ‘man handled’ such as picks and shovels etc. are for ‘labour’. *These tools* are ‘used’ by unskilled replaceable ‘flunkies’ in intensely hierarchical power over systems. [producing useful things for elite people]. Power tools in this sense don’t mean a steam shovel but rather a overseer system that enforces work rates for instance.

**(3) Tools for conviviality** viz. decentralised manufacturing processes such as one off/DIY/custom build exemplars through independent ‘techne based work’ [producing useful things for useful people/citizens]. Illich argues that the latter is one of the bases of ‘conviviality’ and so **techne and conviviality go hand in hand so to speak** – manucaption. Drawn from Illich (1973:35-37, 43). Power tools in this sense means ‘tools for a convivial society’. Here tool use is aimed at turning the tool system into an Internet-like mutual aid ecosystem rather than a scattered network of proprietary islands.

Artificeering and the Bush Mechanic derive from 'tool universe 3'. [For example in 1945 in the US 1/3<sup>rd</sup> of houses were DIY/Owner built by 1970 this had fallen to 1/10<sup>th</sup> now it is less than 1%, with mass production based on centralised technique now building more than 9 out of 10 homes. Illich (1973:43)]

**3 Tool uses** – on one hand we can have 'high tech low touch' tools that support the ongoing intensification of the industrialisation of centralised mass production through programmed tools, compared with tool systems that are 'low tech high touch' such as labours tools of pick and shovel so to speak and finally to tool systems that are 'high tech high touch' techne building, exemplar producing for decentralised DIY productivity. [For example in 1945 in the US 1/3<sup>rd</sup> of houses were DIY/Owner built by 1970 this had fallen to 1/10<sup>th</sup> now it is less than 1%, with mass production based on centralised technique now building more than 9 out of 10 homes. Illich (1973:43)]

**Tools - agency** - Increasingly as tools have become more sophisticated they have imbibed a certain level of agency or at least intention. So that individual agency has been displaced, or transformed, by the agency of the collective as in (1) State viz. e.g. Hitler/Stalin, and (2) complex machine now with intelligence/computer assisted. The individuals moment of intention is peripheralised compared with the congealed, collective intention embodied in the machine which itself is part of a greater complex of machines and contracts, suppliers and consumers and ultimately institutions and cultural memes that makes up modern society.

Tallis (2003:237), as an aside the male appendage is also called 'a tool' indeed 'his tool' or 'my tool' a man's most valuable possession. Further he argues convincingly, in my view, that *Selfhood and agency are two sides of the same coin*. Tallis (2003:296).

**Tools - macro-historic links** – Handkind existed for aeons before Humankind emerged. For instance by 1.5myBP our Toolkind ancestors (Homo habilis from 1.75myBC) were using tools and by 0.25myBP Homo sapiens emerged in Africa and then it was only in 0.1yBP that we became Languagekind gained language. With this event combined with the previous emergences we became humankind. This was long after Homo Sapiens emerged in Africa 0.25yBP. Then with the emergence of writing in Mesopotamia 6000yBP we became Writingkind and thus civilised and moved out of prehistory. Tool using + language speaking + agriculture engaging + writing practicing = modern Home Sapiens Sapiens = us = Humankind. So we have only been around for the past 6000 years or 0.4% of Toolkinds existence, while we have been Languagekind for only 7% or 0.1myears of Handkind's existence.

**Tools - linguistic and macro-historic links** - Language and hand dominance re most marked in the human species. The hemisphere that speaks is also the hemisphere that controls the dominant hand. Tallis (2003:257-258). Indeed it may be argued that gestures are intermediate between language the tool use not quite one or the other. Like language tools have both a private, individual, subjective face and a public collective objective face. Tallis (2003:237-238) argues that the hand was a precursor to tool-use about 2mBP and tool-use was itself a crucial precursor to the development of language about 10,000BP (this puts the earliest recognisable tool-use predating Homo Habilis by 0.5my).

Example: consider the word **Tact** – noun (1) a keen sense of what to say or do to avoid giving offense; skill in dealing with difficult or delicate situations, (2) a keen sense of what is appropriate, tasteful, or aesthetically pleasing; taste; discrimination, (3) touch or the sense of touch. Here we see the indubitable link between the hand, touch, taste and language.

### **Tool/Techne/Chiro/Organon**

In a macro historical sense in the ancient Greek times of Plato or Pliny tools were an extension of the man and indeed these authors use the term ‘organon’ to talk of tools or devices. The hand or ‘chiro’ in today’s parlance is also called the ‘organon’, the hammer an ‘organon’ and the hammering hand an ‘organon’ and the practice of hammering being ‘techne’. In the narrow sense whereby the tool becomes discrete and independent of human agency i.e. a thing is according to Illich (2005:225) a modern conception originating in the late Middle Ages and then in the industrial revolution several centuries later man became an extension of the machine and we have the birth of technique.

**Tools/training pedagogy and social organisation** - as tools get more industrialised they get bigger and require fewer people who now become technical operator’s even operatives. For instance compare a massive drag line digger for coal mines with thousands of Russians who dug the anti tank ditches around Kursk in WWII. This is scalable to social organisation which likewise gets more technically (not technecally) complicated and controlling as society gets larger.

**Toolkind - b where Humankind becomes Toolkind then Handkind i.e. us - Homo faber** is Latin for ‘Man the Smith’ or ‘Man the Maker’<sup>xxxii</sup>; in reference to the biological name for man, ‘*Homo sapiens*’ meaning ‘man the wise’. This is a concept articulated by Hannah Arendt and Max Scheler, as counterpoised with Arendt to *Homo Laborens* – man as labourer. It refers to humans as controlling the environment through tools. Henri Bergson also referred to it in *The Creative Evolution* (1907), defining intelligence, in its original sense, as the ‘faculty to create artificial objects, in particular tools to make tools, and to indefinitely variate its makings.’

**The hand then becomes the link between Nature and Culture** – and possibly helps account for the ‘leap of faith’ necessary for ape to become man. The hand allows us to be rooted in nature but not immersed by it.

### **Out of (our hand) Hand as the tri metaphor for Out of Africa and Out of Nature.**

Out of Hand comes self fulfilment in terms of our (1) sense of agency with its emergent (2)

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<sup>xxxii</sup> **NB:** In Latin literature, Appius Claudius Caecus uses this term in his *Sententiae*, referring to ability of man to control through tool use based on his hands and his reason, his destiny and what surrounds him: *Homo faber suae quisque fortunae* (‘Every man is the artifex of his destiny’). Karl Marx refers to this concept using the quote by Benjamin Franklin about ‘man as the tool-making animal’ in his *Das Kapital*. In anthropology, *Homo faber* (as ‘the working man’) is confronted with ‘*Homo ludens*’ (the ‘playing man,’ who is concerned with amusements, humour and leisure). It can be also used in opposition or juxtaposition to ‘*deus faber*’ (god the creator, the making god), an archetype of which are the various gods of the forge. (Source: Wikki)

sense of self, and the derivative notions of (3) causation and (4) pro-action or planning with the of sense of (5) intuition – so from Out of Hand comes Intuition of Agency. Tallis (2003:324). The hand is the instrument of the transcendence required to bring us out of nature sufficiently to manipulate it.

**Traction Learning** – this is a development from Tr-action Learning – hands-on learning with traction with action with the hands. We can extend this somewhat with, for instance, the concept of the bush mechanic as a *high actane* (co. Octane) *farmacist* practicing *traction learning*.

**Training as Ascesis** – in the sense of this eBook is articulated in Appendix G on Pedagogy. It is based on the chiro/organon approach to techneque cp. technique and CBT (Competency Based Training or as I call it CGSRBC – Commodified Globalised Standardised Repetition Based Conditioning as product of social engineering). Training here means primarily collegiate mentoring of mimesis with understanding leading to self discipline in the sense of the 10,000 hour rule and ultimately a form of memesis. This is in line with the ancient concept of ‘ascesis’ which has been lost to the West for millennia. We see it in the East as say Yoga and Zen. And in its ultimate expression is the repeated expression of faith, hope love and skill. Illich (2005:228). This gives a flavour of the origins of our modern day ‘ascetic’.

**Transterical** – the interface between the exoteric (mundane) and esoteric (sublime) worlds typified in this series by ‘D’esign e.g. of the PIDIL and Alexandrian kind Alexander, Ishikawa, and Silverstein (1977), Alexander (2005) and Todd (1997).

**Unknowing and Undoing** – this eBook takes a Romantic perspective to situate the artificer and thus within the mysterium, within the sublime and our imagination, expressed through our ingenuity, is crucial to chart a course through these unknown waters. So the unknowing and mysterium are vital aspects of the artificers toolkit. Like a particular type of Buddhism whereby a small fault is left/built into every creation to indicate this sublime truth that the truth is unknowable just as a perfect EP is undoable. Human Unknowing and Human Knowing then are both vital aspects to the Artificers life. Even if consciously considering human unknowing is like the need for boron in plant life miniscule (0.003% of hydroponic nutrient solutions) yet utterly crucial for without this is trace element life does not occur).

For me the Artificer uses imagination expressed through ingenuity manifest through chiro-dexterity to transform what can be the awe and even terror of the unknowing in the sublime presence of the mysterium into form beauty and love. This then is the beginning of transcendence.

Unknowing has its mysterium counterpart, I submit to my readers, in undoing, unthinking and **undoing**. Here undoing has two dimensions self-undoing that is emptying oneself of the ego and its phantasms and thing undoing that is simplifying and grounding one’s lifestyle and projects thereby releasing ones potential. And even potentially discovering one’s ‘**soul’s purpose**’ compared to (possibly) and in balance with ones ‘**spirit’s purpose**’

in achieving the EP. This may be seen as the **anti-EP** an necessary counterpart of the EP to maintain **transteric balance** like anti-matter and matter respectively.

Maybe we will find our **unknowing** at the centre of our knowing, maybe in Daedalus's chthonian labyrinth, maybe in making our equivalent of same for instance in our Exemplar Project our Magus Opus, maybe we will find it in the pattern of our oeuvre. To reach our potential to discover our humanity we do however, I submit, need to touch our unknowing to know. It is for these reasons I have included Zen in the title of this eBook series as Zen has the concept of the moment of eternal return that eternal now that moment of undoing when we step into and through our doing, through our artifice of ingenuity, to our unthinking in our undoing. This too is part of the mater artificer's praxis – **unpraxis** – **avocation** – aletheia – unfoldment cp. the EP's foldment. These remain in essence somewhat beyond the scope of this eBook.

Moreso even the reclaiming by time, Ozymandias like, or our great pretensions, our great extensions, our great EP's then can be part of our unknowing even part of their original intent? Indeed is not the ultimate EP – Gaia herself the ultimate daedal (wonderfully made) project that is of herself, out of her aeons of time, our birthing, our reverse Ozymandias? This is my mysterium. (Ozymandias – poem by Percy Bysshe Shelley (1792-1822: 30yrs).

**NB:** Detailed discussion of the sublime, mysterium, human unknowing, human undoing, transtericism, soul purpose, spirit purpose and anti-EP are beyond the scope of this eBook.

**Who is the Customer?** – [from a lean manufacturing position]

Service is an utterly foundational and critical aspect of the Artificer/Bush Mechanic writ small or large as in this case.

Two key aspects of service are: (1) who is your customer, and (2) who are the stakeholders?

**Take the case of a hospital**

Why would the surgeon, a service provider, be the customer? She would be a stakeholder for planning but not a customer for service mapping and tracking. As skilled as he may be, she is there to provide a service to the patient, as is everyone else. The surgeon may be an internal customer, but I don't think he is 'THE customer.' What adds value? I would ask **'What is the purpose of the hospital? Why does it exist? Who gets the bill'** That might help get to that answer. Now you can see the surgeon is not a customer not who the hospital was built for but she can be a stakeholder/internal customer. Here for instance in a complex (mal?)adaptive system like a hospital the insurance company/or Government in a public health system also gets the bill. Yet on balance the customer pays the insurance company/Government (taxes) as well so in the final analysis the patient is the customer.

Further the Surgeon, as well as the patient's medical insurance company, is in the complex value chain that delivers service/value adds to the customer. The customer sees one service however it is important to integrate all these diverse and discrete and disparate components of the value chain/tree at the bed of the customer and not leave gaps etc. **The trick, of course, is to avoid sub-optimizing one part of the process at the expense of any others!**

**Work** - conventionally in modernity means - labour, effort, travail, struggle, productive toil. English is a Germanic language and our word 'work' comes from the German 'wirken' and 'arbeiten' the latter conventionally associated with the English sense of work and in German still retains the artisan flavour of 'handwerker' or 'handworker' in English.

Work particularly the Middle Ages, however meant the bringing forth and revealing or *aletheia* through the producing of houses, tools, pictures. Only in modernity has its meaning been constrained to *causa efficere* and labour (travail). Indeed Heidegger (1977:160) maintains that the fundamental characteristic of working and work does not lie in *efficere* and *effectus* or *labor laboris* but rather in *entelecheia* as in presencing of a realised potential viz. e.g. the Exemplar Project of the Artificer. (In Latin *labor laboris* can mean work or labour). Furthermore Wirken in its more ancient historical sense drew on a broadly sense of revealing in its Greek derivation. Work also means ongoing activity - betrieb - ongoing activity, driving on, industry, and determined committed action.

Intriguingly the context of pattern, tree or network 'thinking and acting' can be seen in the word ge-wirken (web, texture, weaving, and gathering). Heidegger (1977:160-168 footnote 23) adds the prefix to emphasise the efficaciousness gathering of various items and ideas for a particular end. **In this e-book work is used in the sense of blending wirken and arbeiten - to execute, to work, to fashion, to fabricate, ultimately to set forth the way of revealing,** to incorporate this second, yet more Ancient, yet breathtakingly post post-modern, sense of *aletheia*.

## Appendix C: the Human Ecology of the Bushy

### *Introducing the K-sere and R-sere as human ecological metaphors*

Essential to this pattern is a difference in the way that earlier and later sere<sup>xxxiii</sup> deal with energy and other resources. Species common in early sere - R-selected species, in ecologists' jargon - usually maximize their control over resources and their production of biomass, even at the cost of inefficient use of resources and energy. Weeds are a classic example of R-selected species: they grow fast, spread rapidly, and get choked out when slower-growing plants get established, or the abundant resources that make their fast growth possible run short. Species common in later sere - K-selected species - maximize efficiency in using resources and energy, even when this means accepting limits on biomass production and expansion into available niches. Temperate zone hardwood trees are a classic example of K-selected species: they grow slowly, take years to reach maturity, and endure for centuries when left undisturbed.

Apply the model of succession to human ecology and a remarkably useful way of looking at the predicament of industrial society emerges. In successional terms, we are in the early stages of the transition between an **R-selected sere** and the **K-selected sere** that will replace it. The industrial economies of the present, like any other R-selected sere, maximizes production at the expense of sustainability; the successful economies of the future, emerging in a world without today's cheap abundant energy, will need to maximize sustainability at the expense of production, like any other K-selected sere.

*Applying these ecological categories to the Bush Mechanic:* In this ecological model then, if one may extend the analogy to human ecology, the bush mechanic is representative of a previous era that is a K-selected sere of homo sapiens habilis (wise handy man) where as the R-selected species represent the recycle don't reuse homo sapiens consumermis (conscious consumer man).

To put this into the broader picture it's necessary to factor in the processes of evolutionary change, because climax communities are stable only from the perspective of a human lifetime. Environmental shifts change them; so, often on a much faster timescale, does the arrival of new species on the scene. Sometimes this latter process makes succession move in reverse for a while. For example, when an invasive sere of R-selected species outcompetes the dominant species of a K-selected climax community; eventually the succession process starts moving forward again, but the new climax community may not look much like the old one.

Apply this to the human ecology of North America, say, and it's easy to trace the pattern. A climax community of K-selected Native American horticulturalists and hunter-gatherers was disrupted and largely replaced by an invasive sere of European farmers with a much more R-selected ecology. Not long after the new community established itself, and before

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<sup>xxxiii</sup> **Sere:** noun – it means ‘the entire sequence of ecological communities successively occupying an area from the initial stage to the climax’. This section draws strongly from (1) Greer (2008:238-240), (2) <http://www.energybulletin.net/node/35118> - Published Sep 26 2007 and (3) the Arch-druid Report <http://thearchdruidreport.blogspot.com/> **Civilization and succession** all by John Michael Greer

succession could push it in the direction of a more K-selected ecology, a second invasive sere - the industrial economy - emerged, using resources the first two seres could not access. This second invasive sere, the first of its kind on the planet, was on the far end of the R-selected spectrum; its ability to access and use extravagant amounts of energy enabled it to dominate the farming sere that preceded it, and push the remnants of the old climax community to the brink of extinction.

### *K-selected seres and the post-industrial Bushy*

Like all R-selected seres, though, the industrial economy was vulnerable on two fronts. Like all early seres in succession, it faced the risk that a more **efficient K-selected sere would eventually outcompete it, and its ability to use resources at unsustainable rates made it vulnerable to disruptive ecological cycles of boom and bust that would sooner or later guarantee that a more efficient sere would replace it. Both those processes are well under way.** The industrial economy is well into overshoot at this point, and at this point a crash of some kind is pretty much inevitable. **At the same time, the more efficient K-selected human ecologies of the future have been sending up visible shoots since the 1970s, in the form of a rapidly spreading network of small organic farms, local farmers markets, appropriate technology, and alternative ways of thinking about the world, among many other things.**

### *Welcome to the tamest show on earth – ‘homo consumptionista’ where lack of techné in part leads to our brain size reduction (the most outrageous hypothesis of this series)*

Research shows that to a small extent our brains are actually reducing in size rather than expanding. For instance our brains are now around 15% smaller than Neanderthal brains at about 1.2l for males and 1.1l for females. Ubiquitously in the natural world domestication has reduced brain size e.g. 30% for pigs, 20% for horses and 10% for dogs. Intriguingly dogs as they lose brain volume and 10% is crucial when you start say with 80cc they increasingly become attuned to obedience i.e. doing what they are told even to the extent of seeking to anticipate the intention of their owner i.e. look for what they are going to be told. Wild dogs do not have these ability w.r.t. humans, however for prey animals I am sure they do. <sup>xxxiv</sup>

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<sup>xxxiv</sup> **Chiro creates Cranio – Hand creates Head ~ Human brain size since the late Palaeolithic *has decreased* in tandem with decreasing contribution of animal food to diet.** In addition, a recent analysis updating the picture of encephalisation (relative brain size) changes in humans during our evolutionary history has revealed that human cranial capacity has decreased by 11% in the last 35,000 years, the bulk of it (8%) in the last 10,000years see: Ruff, Trinkaus, and Holliday (1997) and Eaton (1998) notes that this correlates well with decreasing amounts of animal food in the human diet during this timeframe. (Of particular relevance here is that most of this decrease in animal foods correlates with the dawn of agriculture 10,000 years ago.) [<http://www.beyondveg.com/nicholson-w/hb/hb-interview1f.shtml> a multi-authored web page *Setting the Scientific Record Straight on Humanity's Evolutionary Prehistoric Diet and Ape Diets - (quoted on site - Anthropological Survey Data Shows Meat Averages Over 50% of Hunter-Gatherer Diets)*]. **See also:** New Scientist 23-08-2010 – Article by Amanda Geffer on the book ‘The Artificial Ape’ by Timothy Taylor that strongly argues Chiro (hand-techné) created Cranio (head-technique). **NB:** The adult human brain weighs on average about 3 lb (1.5 kg) with a size of around 1130cc in women and 1260cc in men, although there is substantial individual variation. The human brain uses around 20% of the energy that we get from our food when we are resting, but it is only 2% of our body mass. This is one reason that the brains of new-born humans are only about 25% the size of those of adults. It is hard for a pregnant woman's body to feed her own brain and that of her baby at the same time. It is even more difficult when there are twins.

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Evidence indicates Neanderthals brain did not experience such a decline and they lived right up to the end of the Palaeolithic and as such remained meat eating hunter gatherers and their brain capacity remained at 1500cc that is 10% larger than modern humans and infuriatingly and yet intriguingly the same as that of 'pre-domesticated homo sapiens'. Female Neanderthal brains were about 200 cm<sup>3</sup> (13.5%) smaller than those of males. This sexual dimorphism should not be a surprise since female bodies were smaller. Modern human female brains are about 10% smaller than those of males for the same reason. Yet on average the human brain is about 5 times that expected from the rest of the animal world based on our body size. Supporting evidence suggest that in other animals there is a pattern whereby those with larger brain-to-body-size ratios are carnivores and omnivores, with smaller, less complex guts, and dependent on diets of denser nutrients of higher bioavailability. The human pattern of an overall smaller gut with a *proportionately* longer small intestine dedicated more to absorptive functions, combined with a simple stomach, fits the same pattern seen in carnivores.

**Uniquely in hominids two-thirds of human brain growth occurs AFTER birth**, so most human brain growth is shaped by the baby's real-life experiences in the external world i.e. with the baby's immediate family in the first years of life. Thus learning through mimesis - imitating with increasing understanding, the underlying heuristic of apprenticeship, our parents and teachers is crucial in the first 8 years of life. Typically in other mammalian species 95% of brain development has occurred pre-partum i.e. prior to birth and at birth the baby's brain is the about the size of a chimps. Abbott and MacTaggart (2010:2-5, 33, 55). When fully developed the infant brain has more neurons than the adult brain and what determines what pathways and thus neurons survive is experience that is the lived life. In short from an evolutionary perspective of the past 1.5 million years; Human Being means 'Human Activity Dependent Development' (HHAD), in short – **nurture** writ large as culture - where *the outside world of the lived life is the brains best food*. This development continues apace into adolescence in that while actual brain growth finishes in the first few years post-partum wiring is made up to age 10 or so and the broken during early adolescence and remade in the mid teens. In fact up to 10% of neurological connections are remade between 10 and 20 in the human brain. This is unique in Primates. Now I wonder where the importance of becoming 21 and getting the Key came from????

#### **For Readers Background Information (FRBI):**

**FRBI:1** - the average brain volumes - Chimp 400cc; Homo habilis 4-800cc over the evolutionary period of existence for this species. **NB: Homo habilis** is the earliest known species of the genus **Homo**; that is, the first human species, which existed from approximately 2.2 to 1.6 million years ago in east Africa. Homo heidelbergensis ('Heidelberg Man', named after the University of Heidelberg) is an extinct species of the genus Homo which may be the direct ancestor of both Homo neanderthalensis in Europe and Homo sapiens. The best evidence found for these hominin date between 600,000 and 400,000 years ago. H. heidelbergensis stone tool technology was very close to that of the Acheulean tools used by Homo erectus. The species had a brain volume (1250cc) comparable to of Modern Humans (av. 1350cc).

**FRBI:2** - The evidence 'Lived Life Learning' I argue is both memetic and genetic: the Ju' hoan and the Hadza (5000 and 1000 speaking members @ 2010 and declining) Serengeti Plains area - Africa) have the most divergent known\_mitochondrial DNA of any human populations, suggesting that they were the first, or at least among the first, surviving peoples to have split off the family tree. In other words, the three primary genetic divisions of humanity are the Hadzabe, the Jul' hoansi and relatives, and everyone else. Since two of the three groups speak languages with clicks (four types dental, lateral, alveolar and palatal), perhaps their common ancestral language, which by implication is the ancestral language for all humankind, had clicks as well. **These groups use mimesis with understanding, play, mentoring, engaged learning in a Kids and Adults village/tribal/familial environment. This series argues strongly that pedagogy has to be strongly informed by such evolutionary psychology and social anthropology.** The Hadza language contains few cognates (borrowings) and may well be the oldest spoken language on earth with an ancestry of 10+ millennia. See also - [http://en.wikipedia.org/wiki/Hadza\\_people](http://en.wikipedia.org/wiki/Hadza_people) . NB: Clicks have also been recorded in Damin ritual jargon of (two islands off Cape York) Australia.

Homo Sapiens were nearly wiped out being reduced by 99% in population (est.) to only several thousand fertile pairs in the African Serengeti veldt now largely desert - some 65,000yrs ago possibly by the Toba super-volcano in Sumatra now Indonesia. This allowed the emergence of Neanderthal, who may in some theories have predated , as in predation, humans. Vendramini (2009). Further authors such as Abbot and MacTaggart (2010: 40-45) argue that only in the human species do we find the 'rambunctiousness of adolescence'. Here the post-partum brain is still evolving to its potential. Here the 'break-away', 'tare-away', 'mad-arse', 'risk-taking' and 'innovation' attitude of adolescence was from an evolutionary and indeed survival perspective, crucially and utterly necessary at this point for human survival. Detailed exploration of these issues is beyond the scope of this eBook.

**Figure Hominid Tool Use** (see footnote xxxii)

**Figure 3: Hominid Tool Use** (see footnote xxxii)

**Figure 4: Hominid Species Time Line** (see footnote xxxii)

A response here is that the parts of the dogs brains they have lost in the overall reduction in the past 10 millennia have been those that are no longer needed as we the human provides this e.g hunting/food. Thus reduction has been quite selective. Here one can push the analogy to humans becoming domesticated by agriculture at the emergence of the Neolithic now this intensified though the hyper-consumptionism and over regulation of today.

The issue here is, not whether human brain size has decreased in the past 10 millennia, but rather did it do this because of: (1) biochemical switch **from** meat **to** grain – biological explanation; (2) or was it the an ethnographological explanation whereby the ethnographic impact switch **from** free ranging quarry tracking, hunting planning with tools and techne

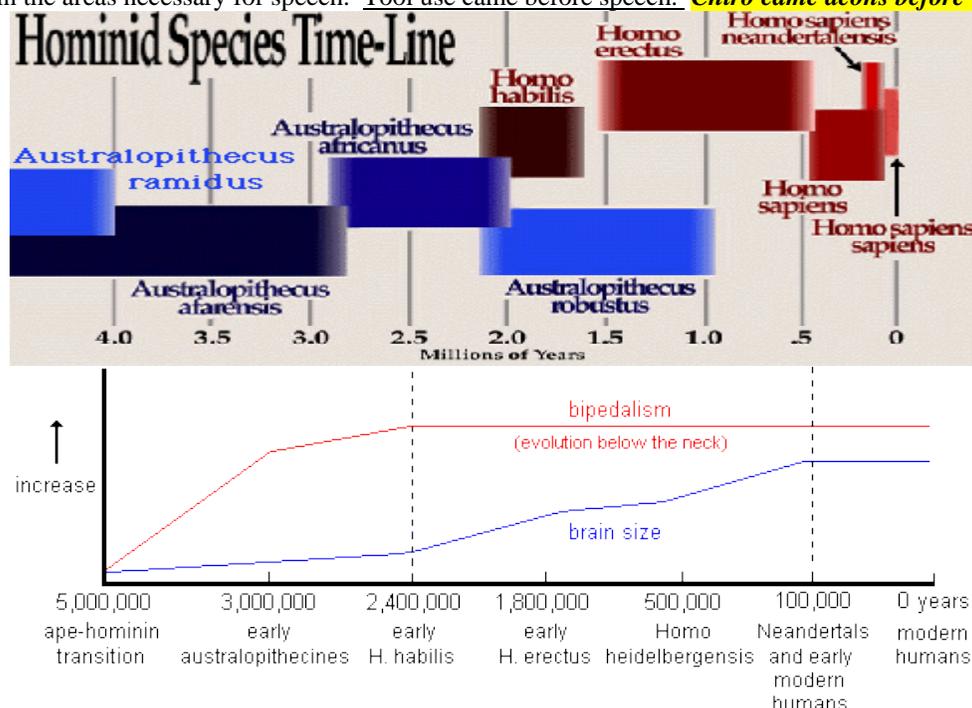
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*Homo sapiens* as symbol making and using species has, in the past 10M (10,000yrs 10Millennia), for instance as compared with *Homo habilis* (Handy Man), seen the emphasis switch from the latter i.e. from techne to symbols. And here in lies the rub that today as *Homo sapiens sapiens* we risk becoming *Homo sapiens propagandais*, inc. tool making, with the former being pejoratively associated with earlier forms of the humanoid e.g. Hhabilis. Consequently the cognoscenti's valorisation of symbol using has supplanted the making of H faber, (Arendt (1963), dimension of homo – at least this is the hypothesis of this eBook. See below of our species timeline:

**Source: Figure 3:** [http://www.wsu.edu:8001/vwsu/gened/learn-modules/top\\_longfor/timeline/timeline.html](http://www.wsu.edu:8001/vwsu/gened/learn-modules/top_longfor/timeline/timeline.html)

**Figure 4:** [http://anthro.palomar.edu/homo2/mod\\_homo\\_2.htm](http://anthro.palomar.edu/homo2/mod_homo_2.htm) (tool use starts some 1million years ago and remains on a slow incline say 1-2degrees until the Neolithic era 8-10MYBP. (Millennia = 1,000 years).

Evidence has now emerged that Australopithecus africanus, with a brain capacity of approx. 450cc and our direct ancestor, made and used tools 3.2myrs ago in Gona region of Ethiopia and suggests this could even be Australopithecus afarensis. This is a little larger than chimp brains (despite a similar body size), but still not advanced in the areas necessary for speech. Tool use came before speech. **Chiro came aeons before Cranio.**



for food, **to** food on hand in garden no sweat type situation<sup>xxxv</sup>; (3) Or **is there a third explanation**, a *psychological explanation*, that of ‘domestication’ ancillary to the nutritional or ethnographic explanations above? It is this latter hypothesis that is the most outrageous of the three and it is one that, I submit, at least deserves not to be dismissed pre-emptively. Techne certainly broached the Palaeolithic and Neolithic periods however hunter gathering and agriculture did not.

In this third explanation I hypothesise that over the past 10M we have transitioned from *homo habilis communitas faber venator tribis (a handyperson who lived in relatively egalitarian tribal groups and fabricated hunting and other tools as in integrated village producing and consuming endogenously)* through *homo sapiens sapiens* to *homo sapiens cognoscenti consupentionist singularist (thinking symbol making people who now live in nuclear groups and value abstract thought above all and focus on individual consumption which is produced exogenously)*. Not having to make anything for ourselves and with its subsequent lack of need to understand the seasons and natural world not having to forage or hunt or plan life matters impacts our need for brain attention and thus over time brain volume – in short **we have, over the past 10M homo sapiens sapiens through a process of psychological conformity and ‘othering’ the savage in us – the spark of nature has been marginalised and conformity to top down authority has triumphed under the guise of ‘democracy’**. And part of this spark is techne. This is not uniquely about the so-called *noble savage (an anthropological phenomenon)* rather it is about the *wisdom of the savage (a psychological state)*.

Of recent times, and elsewhere in this series, I argue that such an othering has transitioned the spirit/essence of what we call today technology to technique cp. techne Wildman (1976). Yet we live longer healthier more affluent lives than ever a Faustian pact indeed. Overtly I wish to submit the outrageous thesis that to some small yet significant extent - *lack of techne leads to lack of integrated brain use which leads to loss of cranium volume*.

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Examples of cranial capacity: [http://en.wikipedia.org/wiki/Cranial\\_capacity](http://en.wikipedia.org/wiki/Cranial_capacity)

- [Orangutans](#): 275–500 cc
- [Chimpanzees](#): 275–500 cc
- [Gorillas](#): 340–752 cc
- [Humans](#): 1200–1850 cc
- [Neanderthals](#): 1100–1900 cc

Examples of early [hominids](#):

Taxon	Size (cc)	Number of specimens	Age (millions of years ago)
<a href="#">Australopithecus afarensis</a>	438	4	3.6–2.9
<a href="#">Australopithecus africanus</a>	452	7	3.0–2.4
<a href="#">Paranthropus boisei</a>	521	1	2.3–1.4
<a href="#">Paranthropus robustus</a>	530	1	1.9–1.4
<a href="#">Homo habilis</a>	612	6	1.9–1.6
<a href="#">Homo rudolfensis</a>	700	1	2.4–1.6
<a href="#">Homo ergaster</a>	871	3	1.9–1.7

<sup>xxxv</sup> From my (utterly lay uneducated simplistic observation – ignorant person type) perspective the brain size of dogs, pigs, horses, cats all which have been domesticated over this period have lost substantial brain capacity 30% pigs 20% horses and 10% dogs etc whereas their diet remained relatively constant. Further this 10M has also seen the emergence of the (particularly male) ego – intriguing coincidence. Taylor (2005).

So in this sense we, in becoming a consumptionista cp. activista type of society, we are truly becoming literally and metaphorically dumbed down. In understanding this declension I suggest there are several elements such as urbanisation, population increase, requisite need for greater regulation, reductions in the individual's degrees of freedom and responsibilities, escalating labour costs, reduction in innovation and custom fabrication, lack of commercialisation of potential and one element is the loss of generic involvement in techne.

*Technique V's Techneque as the uploaded entropic logic base for the singularity*

My subsidiary concern here is that at the singularity anticipated around 2040 when machine intelligence first exceeds human intelligence on this earth at least in area if not volume, technique not techneque will jump the species barrier to sentient technology as the logic base matrix of their initial programming. Technique is entropic cp. Technique which I submit is not necessarily so. So we will see the proliferation of entropic logic structures such as rockets with warheads and social systems supporting such entropic logic such as our increasingly regulated top down power over type apologies for democracies.

*The Interstellar Bushy Question? What if technique not techneque is uploaded at the singularity?*

Importantly we need to be mindful that in effect an organism (e.g. us) is 'a singularity in constant flow'.

In respect of the previous section as can be recalled the bush mechanic approach was used several times to patch up the Millennium Falcon in Star wars. We see the same energy though on a terrestrial basis on Mad Max. By the time we get to Terminator however we see the alien is our uploaded selves the technique has won and now presents to us as our inter-temporal self. Here the global problematique becomes the interstellar problematique.....Three points deserve to be made in this cross application context.

**First**, one of the differences between human beings and other organisms is that human ecologies are culturally rather than biologically determined; the same individuals are at least potentially able to shift from an R-selected to a K-selected human ecology by changing their means of subsistence. Since it's unlikely that a K-selected human ecology can or will be expanded fast enough to take up the slack of the disintegrating R-selected industrial system, there's still likely to be a great deal of human suffering and disruption over the next century or so. Still, those individuals willing to make the transition to a K-selected lifestyle sooner rather than later may find that the disintegration of the industrial system opens up opportunities to survive and even flourish.

**The second point** circles back to Fermi's paradox. The assumption at the core of the paradox is I submit, that today's extravagantly energy-wasting system is the wave of the future, and more advanced civilizations than ours will have even more energy and use it even more lavishly. The concept of succession suggests a radically different view of what an advanced civilization might look like. Modern industrial society here on Earth is the exact equivalent of the first sere of pioneer weeds on the vacant lot described above - fast-growing, resource-hungry, inefficient, and destined to be supplanted by more efficient K-selected seres as the process of succession unfolds.

A truly advanced civilization, here or elsewhere, might well have more in common with a climax community: it might use very modest amounts of energy and resources with high efficiency, maximize sustainability, and build for the long term. Such a civilization would be very hard to detect across interstellar distances, and the limits to the energy resources available to it make it vanishingly unlikely that it would attempt to cross those distances; this would hardly make it a failure as a civilization, except in the eyes of those for whom the industrial-age fantasies of science fiction trump all other concerns.

**The third point** engages the K-sere climax community that emerges after a period of prolonged ecological disruption by various R-sere series along with the arrival of new biotic assemblages rarely has much in common with the climax community that prevailed before the disruptions began. In the same way, and for most of the same reasons, claims that the de-industrial world will necessarily end up as an exact equivalent of some past society - be that medieval feudalism, tribal hunter-gatherer cultures, or anything else - need to be taken with more than the usual grain of salt. Much of the heritage of today's industrial societies will likely prove unsustainable in the future ahead of us, but not all; **some technologies of the present and recent past could easily continue to play important roles in the human ecologies of the de-industrial future, and many more can help cushion the descent.** Tracing out some of the options can help guide today's choices at a time when constructive action is desperately needed.

Bushy score here about 8 out of 10. (PW).

### *The Southern Question – Bushy Logic Base: Principle 2 – the social holon*

It is the contention of this eBook that this question in effect answers itself as in at last 3/4ers of the instances Bush Mechanics represent the south in the north, the periphery from the centrality, innovation from the status quo, volk from the social. Certainly 'hobby scientists' have accounted for many of the great advances over the past century. Further the issue of south or north is a crucial one that is deeply asked by revolutionary pedagogists.

As argued elsewhere **in this eBook the raison d'être herein is not revolutionary rather evolutionary** so that from my perspective the southern question is nested in a deeper evolutionary one of 'the grain of the brain'. Here, I argue that, the Exemplar Project can be seen as a case of 'concretised memetic conscious evolution'.

And so the Artificer Approach, if I may put it thus, **suits south and north** and over macro-historical timelines of at least 1.4million years however today with 2billion people in poverty and the world warming the Bush Mechanic approach is used by many to simply survive. The Bush Mechanic approach also allows for the emergence of the third world in the first.

Bushy score here about 8 out of 10. (PW).

### *The Population Question - Bushy Logic Base: Principle 3 – Global Problematique*

A deeper question is can pedagogy limit population growth and if so how does the Bush Mechanic Approach measure up? Let me say up front I see this as a crucial requirement for a global future for Homo sapiens sapiens – we are literally messing in our own nest. This is our Global Problematique. Crucially there are two sides to the population carrying capacity coin –

numbers and resource use. The population question is about a lot more than just numbers. For instance each Australian uses about 60times the energy of the average Indian so that in effect the Australian population impact is about the same as India. This however is not the point as in a global sense we are using resources at the rate that requires three planets to be sustainable. It is my contention that, if we take a volitional approach basically no pedagogies do a good job at population limitation.

The third principle of the Bush Mechanic Logic Base is to consider the Global Problematique and to articulate how ones Exemplar Project fits therein. So that at least one can argue firstly, that the Artificer Approach should not exacerbate the issue and secondly that the reuse rather than recycle approach also saves on energy and reduces the amount of reproduction that Gaia has to provide, understanding reproduction in a larger post structural sense.

Bushy score here about 6 out of 10. (PW).

### *The Indigenous Question - Bushy Logic Base: Principles 1-4*

Clearly the Bush Mechanic approach seems to be part of, for instance, Australian indigenous approaches with the attributes of: (1) intergenerational learning systems (kids and adults), (2) mentoring, (3) eldership, (4) vehicle maintenance and repair in the bush with minimal tools and no formal training, (5) this being involved in mutual aid and the particular tribal ceremonial cycle. The Australian Broadcasting Commission has made a four part series simply called 'The Bush Mechanic' and based on indigenous communities. My (limited) work in Northern Territory aboriginal communities in the early 1980's also showed this capability.

Moreover, I suggest that in a Freireian **critical literacy** sense such utterly basic and utterly brilliant Bush Mechanic feats/exemplar projects can be used in the sense of transformed text for the process of conscientisation. So that it is not only '**drop out**' (by the student on drugs, sex and rock and roll – conventional rationale). There can also be '**push out**' (where the subjects do not engage the lived world of the student for instance, or say active sports are abandoned thus disadvantaging boys with 'ants in their pants'), '**pull out**' (to do work around the farm/look after relatives/do home jobs), '**stay out**' (afraid of what will happen once one gets enmeshed in the jurisprudential pedagogy), even '**cop out**' (by the authorities and pedagogy itself not engaging the lived life of the student).

So in summary if I may quite frankly suggest that the indigenous question is answered quite positively on several levels and areas through a Bush Mechanic approach.

Bushy score here 7 out of 10. (PW).

### *The Language Question - Bushy Logic Base: Principle 4 - Learning*

In any liberation text the question of language arises in crucial mode. While this text does not have the presumption to see itself as such a text the question raised is a crucial one. Indeed in Liberation Theology and Conscientisation circles embedded in the third world where colonisation has occurred this question is of course unresolvable - does one use the mother tongue of the tongue of the oppressor?

On balance while recognising the deeply politicised nature of the question may I side with Mayo (2004:62) who argues that the choice should fall on the larger language if the larger language gives access to international thought, if the program is to be truly empowering. Oftentimes the larger language is that of the coloniser as Ghandi reportedly said ‘English gave India a view of itself (for the first time – PW)’ and similarly in Australia. Previously there were hundreds of discrete languages in basically tribal areas now there was one lingua franca so to speak.

A further consideration I submit is that if one makes the Aristotelian differentiation between physical and financial economies then we have the language/dialects of each to consider. The language of the latter being nowadays valorised and totalising viz. terms such as derivatives, credit default swaps etc. Whereas the language/dialectic of the physical and household economy – the provenance of the Bushy has all but disappeared e.g. cooking and making is now a spectator sport – viz. ‘Iron Chef’, engineering rules of thumb, metric conversion tables, slide rules, trigonometry tables.n

In the case of this eBook series the language used will be English and this corresponds with Mayo’s view above.

Bushy score here about 8 out of 10. (PW).

### *The Gender Question - Bushy Logic Base*

With the elision from Bush Mechanic to Volk Handwerker, from Shed to Bench (garden bench, kitchen table, work bench etc) and from algorithm to heuristic, it turns out that there are far far more female Bush Mechanics than male with the latter dying out at an increasing rate (in the so called ‘developed world’). I put the ratio at about 5:2 female to male (Australia 2010 estimate) para-system bushies, so that all up I guesstimate the total number of these bushies in Australia to be in the vicinity of 35,000 comprising 25,000 female and 10,000 male. A legitimate eco-feminist critique of this is that these women and men simply inhabit the sexist chreodes provided by the SQS. Valid point however from a post feminist perspective these are nevertheless valid statements of human endeavour and at an even deeper level there is the issue of Yin and Yang energy.

By ‘para-system’ I mean outside the conventional labour market categories. As discussed elsewhere in this eBook series many of within system occupations such as builders, surgeons, dentists etc involve dexterity in numbers several times larger than these ‘full on bushies’, however in this instance these are not included in the above estimates.

**Tabula ipsa loquitur** ~ The bench speaks for itself/herself (bench in Latin relates to the feminine; and opera means work – so work-bench becomes opera-tabula).

Bushy score here about 6 out of 10 - allowing for the ecofeminist critique of the statistics. (PW).

### *The Social Justice Question - Bushy Logic Base: Principles 1&2*

Social Justice to me includes Mutual Aid. Consequently the principles under consideration here are: access, equality, equity, participation, empowerment and mutual aid. These Social Justice principles can be seen most clearly at work in Artificer Logic Base principle no2 and

expressed concretely through no1. In the first seminary held in 2005 about Bush Mechanics one of the presenter Bushy's was a disabled colleague who after an acquired brain injury had to re-configure her house and lifestyle to 'fit' her new demands.

Tragically, for me that is, empowerment is often left out yet this is where agency comes through where we can see self-reliance and resiliency begins to emerge rather than rely passively on Government largess. For me empowerment and mutual aid (without Government intervention) represent third generation Social Justice. In a sense a post-modern, and post-rational-naivety return to the pre-statist welfare state emergence of the 1930's in Europe.

Bushy score here about 8 out of 10. (PW).

### ***The Governance and Compulsion Questions - Bushy Logic Base: Principles 1-4***

These considerations are addressed in detail elsewhere in this eBook. They are embedded primarily in Principle 2 (social holon/mutual aid). If one takes a Conscientisation approach to this praxiological adult education then participation is voluntary and governance is participative. Learning in terms of Artificer Learning, co-learning, co-researching, Teacher∞Student relationships, agency learning and praxis then these questions are addressed moreso. Furthermore the issue of equal and different for the teacher student relationship and the necessary directivity, distancing and dexterity necessary in an Exemplar Project all indicate that the resolution of these questions will be provisional, partial, ongoing and dynamic. Further participation needs to include setting curriculum priorities.

Simple majoritarian democracy will not necessarily suffice more participative democracy even sociocracy will be required nevertheless allowing for the expertise of the journey person to be respected but not simply imitated.

Most alternative systems of pedagogy simply miss this point and have no democratic school council, no parents and children's participation in setting curriculum priorities and no participative disciplinary policy such that parents and citizens are reduced to working bee's and tuckshop planning with a dash of P&C meetings where not much more than finding lost music stands is discussed – my personal experience. State School systems in Australia would score -5 in my view, Steiner and Neohumanist Ananda Marga +4. This is an area where the dumbed down nature of our culture prevents us taking our rightful place as co-governors or our fate.

Bushy score here about 5 out of 10. (PW).

### ***The Depth Question - Bushy Logic Base: Principles 1∞4***

In overview using Causal Layered Analysis we may posit that reality has at least four vertical dimensions the:

- (1) Practiological – the actual Exemplar Project – school rooms
- (2) Systemological – the socio-economic systems supporting that EP – curriculum, grades
- (3) Epistemological – the belief systems underpins (2) – approach to knowledge formation
- (4) Ontological – the view of humanity that underpins (3) – view of how humans learn

From an adult learning perspective system this eBook takes the view that we are *conditioned not determined beings* and that (2) above is generally impacted with conscientisation for instance this goes deeper to say (3) whereas with the Bushy we start at a different view of humanity that is (4) with the grain of our brain and move up to (1) from there.

Bushy score here about 6 out of 10. (PW).

### *The Inter Ethnic Conviviality or Multicultural Question - Bushy Logic Base*

With the linking of play and work say in the concept of 'plerk' at establishing an exemplar project in the context of the next two Bush Mechanic Principles substantial space exists for co-operative work and exploring and respecting diversity. The former conviviality question as with Illich conviviality is a part of critical literacy. Without wishing to be superficial an exemplar project in the sense of this eBook will demonstrate 'unity in diversity' and not 'polycentric' diversity so to speak. For instance building a boat or community centre each is one construction with actual roof, floor, sides etc. The act of its construction and to an extent its use can be polycentric however the structure has to have an integrity of its own.

Whenever a theory or praxis has a pat answer to a deep question I deeply doubt the result so in this question allow me to do the same and thus score the Bush Mechanic below where the approach could well score.

Bushy score here about 5 out of 10. (PW).

### *The Anthropocentric Question - Bushy Logic Base*

This is a deep and challenging question.

From the basis of this approach that of 'evolution' not 'revolution' the Bush Mechanic approach can be seen in 2001 a Space Odyssey for instance when one of the apes picks up a branch to use as a tool/weapon. The Bush Mechanic capability is not something unique to humans some other apes, some elephants, dolphins, New Caledonian ravens etc. have this capability and make tools (in effect just as some other animals have consciousness). What happens is that having a hand with a thumb opposable to all fingers helps hold things – crucial in this tool related praxis. Tool use predate humans by up to a million years and tool use was widely spread among hominid species of which there were several on earth even up to 20000 years ago or less. As indicated the Bush Mechanic approach goes with the grain of this evolutionary brain gain.

Furthermore Bush Mechanic Logic Principles 2 and 3 (mutual aid and global Problematique) both insist on inclusion and challenge anthropocentric species centrality (esp. Principle 3).

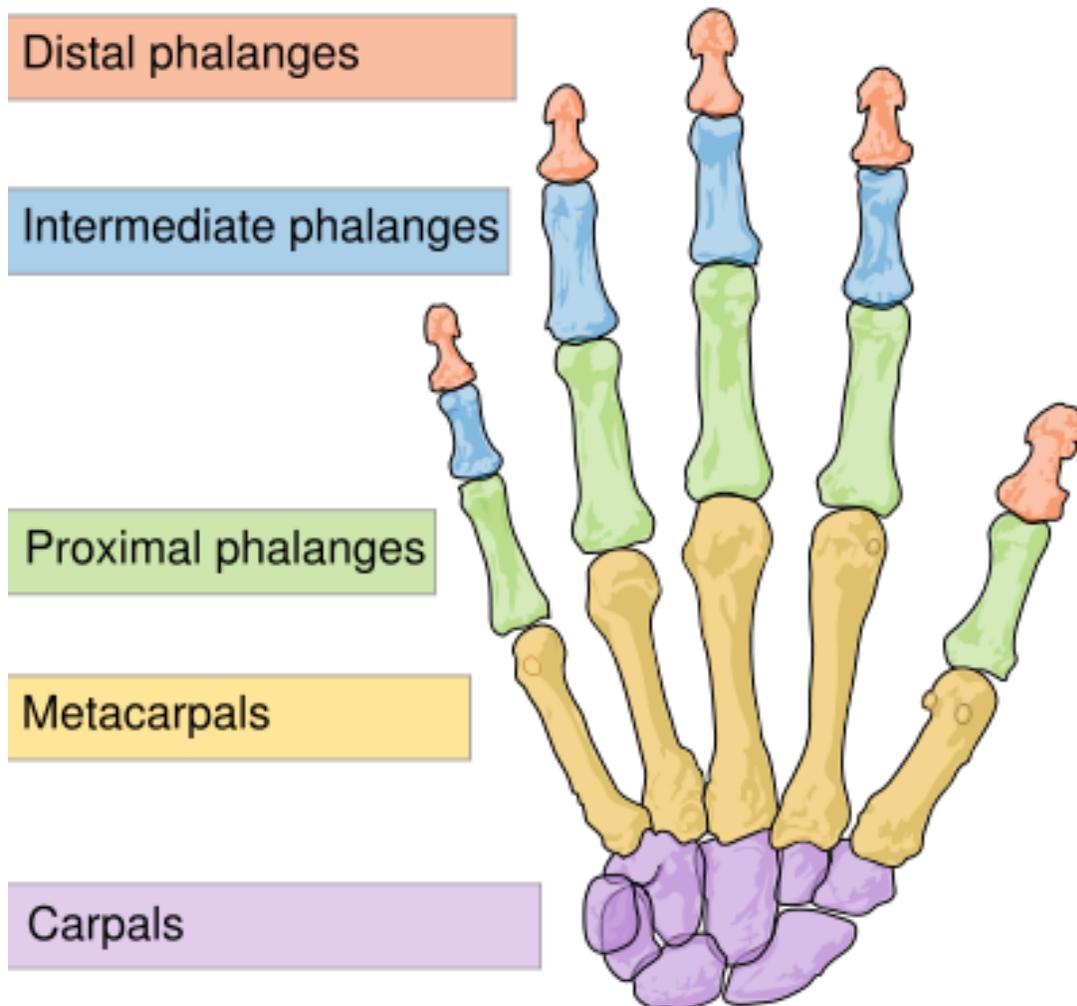
And extending this somewhat outrageously if one looks at life from the bottom up from DNA to plants to the eye all have this cut and shut lateral use of common principles so to speak that is evolution itself is a cobbled together reuse and improve and reapply elsewhere approach using basic even simple ground up principles not abstract top down theories. **Evolution is Bushy**. Somewhere since the Greeks, culturally I submit we have got on the wrong train and now obsess about top down hierarchical control systems such as Foucault's prison, school, hospital, police and military etc.

Again whenever a theory or praxis has a pat answer to a deep question I deeply doubt the result so in this question allow me to do the same and thus score the Bush Mechanic below where the approach could well score.

Bushy score here about 6 out of 10. (PW).

## Appendix D: The 27 Hand Bones and their 27 grips – the basis of Chiro-philosophy

**Figure 5:** *The 27 Bones of the Human Hand*



Source: [http://commons.wikimedia.org/wiki/File:Scheme\\_human\\_hand\\_bones-en.svg](http://commons.wikimedia.org/wiki/File:Scheme_human_hand_bones-en.svg)

This utterly remarkable appendage is unique in primates and indeed in life itself. These 27 bones when supported by the arm can engaged in at least 20 distinct grips inc. handshake grip, basket handle lift grip, scissor grip (smokers know this one all too well), pencil grip – critical for writers and dentists and surgeons, pistol grip, disc grip (taking the top off a jar), swing grip (swinging a sledge hammer), 10pin bowling ball grip, griping a computer mouse (4 fingers), griping a remote/cordless phone while using the index finger to select channels etc, poking/finger pointing grip, stab grip, two, three, four and five jaw chuck grip, ball as in cricket grip, sword grip, rotate object grip and finger lock grip.

### **From prehension to brachialisation to chiralisation to digitisation**

Thus **prehension (grasping)** links to apprehension (grasp a criminal or idea) and links to comprehension (grasping the meaning of something e.g. a theory) and **brachialisation (arm and its movements)** leads to **chrialisation (hand and its movements)** and then the

above digitalisation (fingers and their movements e.g. as in the above grips) and finally to **digitisation (fingers and their movements)** inc. haptic sense, grip and dexterity. These grips are the basis of all **dexterity** so necessary even today in our day-to-day lived lives. Further these grips can be writ large as for instance ‘body language’ and kinesics (study of human movement as a form of communication) and semiotics (gestures as signs and symbols).

This has also led to the positing of the calling of hand centred, chiro-philosophy Tallis (2003:13), which is distinct from other philosophies inc. chiropractic philosophy which engages metaphysics and esoteric energies etc. It is hoped that this eBook and those associated therewith may hopefully be considered as humble contribution thereto.

### **Welcome to the ultimate feed-forward phenomena - the hand**

Recall threading a needle or tossing an orange from hand to the other or even more forward-feeding juggling.

*One hand can generate power grips and precision grips:* recall pulling the thread through of a needle.

*There are many ways that two hands cooperate:* just as they are now as I type this text, for instance playing the piano, throwing and catching a ball, holding a screw in place with one hand for the screwdriver which you are holding with the other hand and so forth. Holding and shooting a bow and arrow.

*Now we have two hands ‘cooperating’ with each other and the body:* Imagine then if you will, using a separate grip per hand to hold say a tray with a sandwich in the right hand and a cup of tea in the other while having ones spectacles hooked underneath on one finger, all while one walks up a flight of stairs keeping ones balance, utterly amazing.

*The hand, indeterminacy its abstract actions symbols and constructions:* For instance the hands illustrating a mathematical formula, symbolising the ‘OK’, or holding a needle even threading a needle, or making a wheel that looks nothing like a leg. Furthermore every grip is different so that the hand has a certain indeterminacy associated with it such that it can adjust instantaneously to whatever undetermined context it faces ‘constrained or bounded indeterminacy’.

*The Esoteric Hand - Hand movement - Mudra as Thinking* - Mu·dra [muh-drah] – noun Hinduism, Buddhism. (1) Any of a series of arm and hand positions expressing an attitude or action of the deity. (2) Any of various similar gestures used in India's classical dancing to represent specific feelings. **Origin:** 1805–15; Sanskrit *mudrā* sign- n. Mudra is a series of symbolic body postures and hand movements used in East Indian classical dancing. A mudra often accompanies the utterance of a mantra. A handshake is a form of mudra with its accompanying mantra ‘giday’. Tallis (2003:258).

### **Mobius Homunculus through Handkind's Ontology - realising our totipotential through our hand~head interface**

The human hand is unlike any other broadly equivalent grasping type limb on any other animal indeed life form. It is so unlike the ape hand in that it is relatively unspecialised,

just as, in effect, large parts of our brain is. It can use its totipotential (ability to develop/operate in various specialised ways in response to external or internal stimuli) to develop and operate in whatever direction is beneficial to the organism in the context in which we find ourselves. Tallis (2003:267). Then hand and the brain are the two organs above all in the human body that manifest substantial totipotential. These two phenomena then provide the basis of what may be called handkind's ontology. In this sense unlike other primates the hand has many degrees of freedom and can grasp, prod, signal, poke, beckon, hold, twist and so forth unlike primate hands which are really foot-hands.

Here the brain and the hand can enter a spiral of systems even ecologies of co-evolved adaptations to the overall benefit of the individual and the species. Please note also the interface is also in integrated one whereby nerve fibres join the two yet the one the head can gaze at the hand as a separate entity – the self within self – the *mobius homunculus*. Homunculus e.g. miniature person inside an egg or sperm - in early biological theory, the fully formed human being that was thought to exist inside an egg or spermatozoon.

### *Handkind's (re)wiring of the brain during childhood through hand use play*

The hand especially during childhood provides experiences that (re)shape the brain. The plasticity of the brain is now widely recognised and in childhood we start to hard wire the brain by virtue of the experiences by virtue of the, for instance, hand skills viz. gross motor and fine motor skills developed. So in this regard Lego blocks, Meccano sets, play building.

**Types of Play** - Play is for many authors the very heart of early childhood 'kids being kids'. There are several types of play used in child development work. All of which overlap to varying extents and are each useful in their own right in certain regards in the varying situations of a typical child care day. These include:

**(1) Sociodrama Play (SP)** - Sociodrama concerns itself with group issues. It is a group action method in which participants act out an agreed upon social situation spontaneously and discover alternative ways of dealing with that problem. It concerns itself with those aspects of roles that we share with others and helps people to express their thoughts and feelings, solve problems, and clarify values. Unlike simple role playing, sociodrama employs many specific techniques to deepen and broaden the action of the enactment. Some of these are: doubling, soliloquy, and mirroring. See: <http://www.psychodramala.com/sociodrama.htm>

**(2) Fantasy Play (FP)** – Collaborative fantasy play and storytelling serve an important role in preschool children's development. Making up characters and telling stories are activities through which children make sense of and test their hypotheses about the world.

<http://web.media.mit.edu/~kimiko/publications/CSCL99.pdf>

**(3) Physical Play (PP)** - Children are naturally drawn to active play. Without it, they get 'antsy' and 'fidgety'. We see it when they are buckled up in car seats on long drives and at other times when they are unable to be active for a period of time. Active play is crucial for children's health and development. In child care, provisions must be made for active play throughout the day. [http://www.healthychildcarenc.org/PDFs/CC\\_NEWS502.pdf](http://www.healthychildcarenc.org/PDFs/CC_NEWS502.pdf)

**(4) Intelligent Narrative Play (INP)** – see the following section. This form of play can incorporate the others on an 'as required' basis and is thus the focus of the play discussions in this eBook. This is a personal choice however it is the form of play we have found to be most

efficacious in the 20 or so child care centres we manage, and have managed, over the past decade in South East Queensland, Australia.

### Intelligent Narrative Play (INP), the Romantics, and the role of Spieltrieb

Von Schiller (1759-1805) see particularly (1795) a key German playwright/philosopher of the romantic genera differentiated three primary drives/desire in humans and he incorporated these into his work esp. as a playwright. The three drives/desires are: (1) the **Sensuous drive** **{{(Sofftrieb)[Heart] - (art)}** and, (2) the **formal drive** **{{(Formtrieb) [Head] - (morality)}** which melded with (3) the **Play Drive** **{{(Spieltrieb) [Hand] (beauty)}** to express human aesthetics which in turn manifest as art, craft, creativity inc. poetry. The latter being the most important of the three – by far. Here we have the essence of the Bushy Ontology – Head, Heart and Hand.

Thus expression of Spieltrieb is crucial to the development and expression of our imagination which is essential to our humanity. Lockridge (1989:31, 84-86) indicates that for Schiller the end of the sensuous drive it to augment life, and the end of the formal drive it's to augment form, and the end of the play drive is to augment beauty i.e. ascetics. For Blake then imagination is representative of 'the devil' or diabolos or the Orc.

This position is echoed in other Romanticists of the time, late 1700's to early 1800's, such as Wordsworth (1770-1850: 80yrs), Coleridge (1772-1824: 52yrs), Hazlitt (1778-1830: 52yrs), Thomas de Quincey (1785 – 1859: 74yrs), Byron (1788-1824: 36yrs), Shelley (1792-1822: 30yrs) and Keats (1795-1821: 26yrs). And of course we must not forget the progenitor of all this blossoming the incomparable John Milton (1608-1674).

Indeed Coleridge and Schiller (1759-1805: 46yrs), and also echoed by Blake (1757-1827: 70yrs), see the *play drive* as disciplining the other two and as being instrumental in the progress of science (hobby science?) and is impeded by an inability to live with half-knowledge and the drive's push to 'the intellectual construct', reason and ratiocination . In short Spieltrieb drives us to the integrated telos of living form. A key philosopher of this era who drew much inspiration from the Romantics in what may be called 'Romantic Expressionism' was JS Mill (1806-1837: 31yrs)

Language and thus text and thus 'literacy' which, remains for the Romantics chiefly an expressive, not determinative agency, of human will and intellect and its expression, something while not quite to the side certainly not main stage centre.

So that in terms of pedagogy for these five (play)writers/poets imaginative activity predicates and predates our larger moral life and this life is conceived as a totality of thinking and doing. And that imaginative play is the source of human freedom. Here for the romantics imagination is the truly revolutionary faculty. For the Romantics then **it is the imagination that reintegrates the various dualities** mind/matter, individual/collective, emotion/order. Lockridge (1989:86) quotes Schiller – 'the imagination reveals itself in the balance or reconciliation of opposites or discordant qualities.

In a broader sense though I see INP manifest in the play of children in the back yard/child care centre/school yard as well as the adult in her kitchen or shed. Tragically in Romantic terms Formtrieb has triumphed and now the school is an annex of the market and education has been reduced tool of the gross national product. Rather, I argue, we must work to reconnect education to the humanities in order to give students the practical capacity to be true democratic citizens of their countries and the world.

### Children's INP

Intelligent Narrative Play (INP) are crucial in a child's overall development. What starts out as (1) self play based in the (2) lived life of the child is (3) guided by an adult (parent/carer) into an exploration using (4) play and (5) source materials on the (6) attributes of the story behind or embedded in the play/game and then (7) into continuing the play context into and with (8) vertical articulation viz. differential age cohorts i.e. younger, similar and older children/co-mentors and ultimately (9) with the child's parents. Here these are (10) complex highly contingent grounded learning experiences for which there is (11) no 'one' answer and no set 'text' books.

Play may also be seen as action based *reality of encounter* that engages thinking and doing through '*joined up*' and 'un-fragmented' encounter with the world, one another and self, thereby *aiding us in finding and making meaning, of and in, our own lives and that of others*; (2) the 'T'eacher is largely absent in the direct power over coercive authority sense here yet largely present in the power with learning facilitating, natural authority sense in organising the context in which the learning occurs. INP is used widely in Early Childhood development, in many ways it is the antithesis of the standard 'one size fits all' curriculum approach to 'education'; (3) such INP aids the transition in the *students locus of authenticity* from the 6C's' (Compulsory, Coercive, Competitive, Cognitive, Compliant, Consumer) to the 6c's' (companionship, creative, co-operative, conjoint, connective, citizenship). Also see Holt (1976:211).

INP then is based on a view of learning as - *doing* which emerges from the reality of encounter with the world, one another and self in a collaborative, self-directed, purposeful, intentional, volitional, agentic meaningful life and work and against *education* as individualised cognitive top-down training cut off from ones lived life active life and done compulsorily under pressure of bribe, threat, starvation, imprisonment, greed and fear.

The game or play behind the one played with children is their playing at the game of 'how the world works' and 'how can I fit into this world?' this is in my view the ultimate responsibility of education viz. learning to help kids and adults play that game. Like art, however, such dynamic contexted play is not reified in pedagogy and soon these games and drawings get pushed aside by the 'subject work books'. Holt (1967:Ch1-Games and Experiments; Ch 4-Sports pg119, Ch 5-Art, Maths etc. pg124). Holt (1976:8, 221). Children hear means non-adult however the term primarily focuses on primary and preschool aged children as the case-in-point.

The justification for this is that used elsewhere in this series that the human at 80 learns basically as the human at 8 does that is Androgogy and Pedagogy are deeply related and interwoven and not as discrete and professionalised as our present episteme would have us believe. Here we approach the idea of Homo Ludens (man the player) with culture as an expression of play itself.

In 'higher' mammals such as dogs it has been shown that **the more dogs play the more their brains develop**. That is their brains actually develop in terms of richness and number of inter-neuronal connections. I suspect that this process also applies to humans and that the process is triggered through chiro play that is dexterity based play incorporating gross and fine motor movements.

*INP in formal pedagogical settings as lived life 'everyday learning'*

We can see this in the 'Everyday Learning' series of practical booklets from Early Childhood Australia. Everyday learning is learning that is embedded in the students 'lived life' and as such draws there from and consequently has an element of 'from nature' that is bio-insights that is in the mold of the romantic e.g. Wordsworth 'The Tables Turned'.

This series includes 'Everyday Learning' about/in the: Friendship, Science, Backyard, Kitchen and so forth. The booklet series is play (INP – Spieltrieb) based in the lived life of the child and uses experiential and discovery learning. Each booklet in the series is approx. 25pgs long and in three principal sections – babies, toddlers and preschoolers with practical how to ideas and exercise for each age/developmental group and references/websites conclude. [www.earlychildhoodaustralia.org.au](http://www.earlychildhoodaustralia.org.au)

*Critique of INP:* Notwithstanding the most positive attributes of INP in the context of a child centred Developmental Pedagogy cautions must be exercised.

**Firstly** INP needs to be embedded in the lived life of the student not something separate thus the students lived life 'includes', home and school.

**Secondly** the students lived life needs to recognise, and seek to compensate for how in some instances the lived life is severely distorted e.g. by crime, wealth, poverty, sickness etc.

**Thirdly** unless interrupted at key points, say via. INP play can reinforce stereotypical roles e.g. boys and girls toys, doctors and nurses and mummy's and daddy's.

**Fourthly** in some instances DP may prepare a student for school but may not be what the parents have prepared the child for e.g. some Asian nations see the students role as to be passive and 'absorb' information often by rote rather than express agency and creativity though INP for instance. Kilderry (2004:34).

### *The palpatory haptic hand and the origins of Agency through Dexterity towards Identity*

[NB: palpatory – to explore by touching] From our hands came the birth of objective knowledge and substantive yearning. The human hand uniquely has a substantial level of indeterminacy about it so that the use of its infinite variety of grips requires dexterity and this in turn requires choice, and a choosing hand is an agentic hand. Tallis (2006:278).

Thus through the use of hand as tool agency is born. Here the hand communicates through touch with itself and thus with the Agent proper so to speak. The inner dialogue of the hand finger to finger – the palpatory haptic hand – diagnostic touch. Thus the hand allows

the development of the tool and thus emergence of the conception of the tool apart from it and thus the self of which it is a part as well as illumination as to the nature of the physical world on which the tool is employed.

## Macro Dexterity

### *Enter Stage Left the semiotic~hand: leading to dexterity as language*

And from agency comes identity of the agent a reflexive moment of dexterity in my view and this in turn leads us to reference intention. Agency then allows and emergent 'I' to validate signs, e.g. that we see in hand movements, from ourselves and others. From this then Tallis (2006:288) argues comes language.

### *Enter Stage Centre the meta~hand: leading to dexterity as Yin/Yang balance*

This eBook is committed to the full restoration of circumstances that support the continuing existence of an Earth First approach also called Aboriginal Earth (while taking into careful consideration human innovations that are or have been in tune with Aboriginal Earth).

Consequently a Bush Mechanic/Artificer will be actively involved in 3 interacting major or meta projects that facilitate the above said restoration. These are named in my own words, purely for identification and understanding in this instance:

1. The restoration and reactivation of (Yin Yang) the **All-encompassing Meta Hand Community Hand** – here we fit as community in the palm of the **community craft or mutual aid hand**
2. The restoration and reactivation of the (Yin) **Nurturing, Healing Craft Hand**
3. The restoration and reactivation of the (Yang) **Innovative, Artifice Crafting Hand**

Still other glimpses of the pervasiveness of 'the hand' as meta concept can be seen in sayings such as: 'the hand of fate' and 'the hand we were dealt' (hand here meaning life chances).

### *Enter Stage Right the proprioceptive~hand: leading to dexterity as body position*

Proprioception — from Latin *proprius*, meaning 'one's own,' and *perception* — is one of the human senses. There are between nine and 21 in all, depending on which sense researcher you ask. Rather than sensing external reality, proprioception is the sense of the orientation of one's limbs in space. This is distinct from the sense of balance, which derives from the fluids in the inner ear, and is called *equilibrioception*. Proprioception is what police officers test when they pull someone over and suspect drunkenness. Without proprioception, we'd need to consciously watch our feet to make sure that we stay upright while walking.

In a broader sense proprioception means 'being aware of one's self' so this in a post-structuralist sense includes one's existential self and one's 'voice' as well as the more mundane ones physical self, one's emotional self and one's cognitive self so to speak. Freire could well argue in this broader sense proprioception is an attribute of conscientisation.

Without proprioception, drivers would be unable to keep their eyes on the road while driving, as they would need to pay attention to the position of their arms and legs while working the pedals and steering wheel. And I would not be able to type this article without staring at the keys. If you happen to be snacking while reading this article, you would be unable to put food into your mouth without taking breaks to judge the position and orientation of your hands.

Learning any new motor skill involves training our proprioceptive sense. Anything that involves moving our arms or legs in a precise way without looking at them invokes it — baseball, basketball, painting, you name it. Proprioception is often overlooked as one of the senses because it is so automatic that our conscious mind barely notices it. It is one of the oldest senses, probably even more evolutionarily ancient than smell.

Among other reasons, proprioception is known to be a distinct sense because there are cases in which the proprioceptive ability is absent in a patient. This means that proprioception uses dedicated brainware. Proprioception-disabled patients can only walk by paying attention to where they put their legs. Thankfully, this condition is extremely rare.

As our culture becomes more intensely concentric or noospheric I hypothesise that dexterity generally and particularly proprioceptive dexterity will and is collapsing and thus people are losing the ability to drive for instance.

### *I hand therefore I am – from hand to consciousness*

I act therefore I am means I am handy therefore I am which means I artifice therefore I am for me this beats ‘hands down’ Rousseau’s ‘I think therefore I am’ or its possible modification ‘I make therefore I am’.

### *The Instrumental underpinning not paralleling the Substantiative*

In this series I argue that the moral philosophy difference between substantive (ends) and instrumental (means) is one of vertical degree not horizontal kind. So that from agency we emerge through instrumental means (the hand) to substantive (ends of the hands activities). So the two foundational oppositions in moral philosophy are really sequential and braided together just as doing (hand - means) and thinking (head - ends) are, with the instrumental being the foundation for the substantive.

### *Demarkers of Homo Sapiens Sapiens*

1. Language
2. Conviviality
3. Bipedalism
4. Tool using
5. Dexterity
6. Agency (PW)  
And (all these point to)
7. Consciousness (PW)

8. A large brain (which I propose emerged because of the above not prior to the above)  
(Tallis (2006:277)).

## Appendix E: In defence of Globalisation

### So what has gone right for globalisation?

In theory and in fact in practice for the past two generations globalisation has delivered the goods. In the developed world:

- (1) A rising standard of living and
- (2) better access to economic opportunity, health and education and so forth.
- (3) High levels of employment

Further from a theoretical basis globalisation has had a bad press as it in theory at least argues for:

- (4) An economically rational market that includes 'other' without artificial Nation State imposed tariffs and subsidies thus generating a
- (5) 'Level playing field'

These physical and econometric facts are undeniable and are not challenged in this eBook, nor indeed are the theoretical justifications.

### So what has gone wrong for globalisation?

Positive economics has to sustain the four great critiques thereof (1) it has no history in that it supposedly exists outside culture and thus history, (2) it has no scale thus global limits to growth do not enter macro economics calculus, and (3) it has no values thus in considering itself value free and objective it seeks to treat people like hard science treats electrons – as if they have no consciousness and no conscience, (4) its failure to continue the distinction between Aristotles two economies and to insist on the ongoing primacy of the former – Oikonomia (the physical/household economy) and Chrematistics (the monetary/financial economy).

All four represent a great persistent and trenchant fundamental failure at the very foundations of this would be science. This has led to globalisation being appropriated by far right politicians in support of yet another of their mad schemes whether it be the Falkland's war, Star wars, or WTO rules against the global commons and its commodification of culture as well as the 'hands off ' market driven de-regulation of monetary systems now so troublesome to our globes future. Economics has not even fully engaged these questions let alone developed serious collective and mass answers thereto.

In this way we see how politics the modern Nation State and global corporation have moulded into the corporate state that is now pitted everywhere against its people. These are a few of the fourteen foundational changes needed in capitalism for it to survive in my view.

**Hayek.** Friedrich August von- an Austrian-born British economist, he is a darling of the free-marketeers. He moved to London in 1931 and held positions at the University of London and the London School of Economics, becoming a British citizen in 1938. Later posts included a professorship at the University of Chicago (1950–62). Throughout his life Hayek criticised socialism, often contrasting it with a system of free markets. In his works he opposed the theories of [John Maynard Keynes](#) and argued that government intervention in the free market is destructive of individual values and could not prevent such economic ailments as inflation, unemployment, and recession.

**Friedman**, Milton, 1912-2006, American economist, b. New York City, Ph.D. Columbia, 1946. Friedman was influential in helping to revive the monetarist school of economic thought (see [monetarism](#)). He was a staff member at the National Bureau of Economic Research (1937-46, 1948-81) and was an economics professor at the Univ. of Chicago (1946-82). Much of Friedman's early work is notable for its arguments against government economic controls. His writings dismissed Keynesian theories on consumption, price theory, inflation, distribution, and the money supply (see [Keynes, John Maynard](#)). His most famous empirical work is *A Monetary History of the United States, 1867-1960*, co-authored with Anna J. Schwartz (1963). The book charts the relationship between general price levels and economic cycles and the government's manipulation of the money supply. Friedman also predicted that the spending associated with government programs would interact with the 'natural rate of unemployment' to result in the [stagflation](#) of the 1970s.

**Keynes**. John Maynard. Keynes's departure from classical concepts of laissez-faire dated from the mid-1920s, when he formulated the Liberal party's program to promote employment by a program of government spending on public works. Keynes came to believe that such a program would increase national purchasing power as well as foster employment in complementary industries. For the sake of full employment Keynes also modified his classical belief in international free trade. His ideas, based on large-scale government economic planning, are best expressed in his chief work, *The General Theory of Employment, Interest, and Money* (1936). Coming at a time when many nations had been racked by depressed economies, the book offered a sharp critique of laissez-faire economic policies and argued that central government needed to step in, particularly during periods of chronic unemployment. Other works by Keynes from this period are the *Tract on Monetary Reform* (1923) and the *Treatise on Money* (1930).

**My professional approach** is 1/3<sup>rd</sup> Keynes and 2/3<sup>rd</sup>s Friedman but with a major focus on the physical mutual-aid economy and at the local level via. SME's with semi-autonomous regions aligned, through an eco-compact, if absolutely necessary for nation states. Corpora'n'ations would not exist (see next section).

### **What needs to be done to fix globalisation?**

Primarily globalisation needs to transform itself through the addressing of these 14 points into sustainable glocalisation.

A trenchant critique of globalisation is provided by Vanderbert (2009a,b,c). For instance he argues that to obtain a picture of what is happening in the International Economy it is necessary to compare daily currency turnover in international financial markets with the currency required to finance world trade and foreign direct investment. The latter economic component represents less than 3% of the former. Even if we deduct a significant percentage to account for the laundering of money derived from the trade of illegal goods and services (drugs, arms, sex, and racketeering), there remains a portion, close to 70%, that corresponds essentially to speculation. We all know that the financial sector contributes to the increasing frequency of speculative bubbles. Vanderbert (2009a:52).

See also Wildman (2010c) where I argue that the onrushing Tsunami of debt the West is facing is a direct result of the speculative bubbles (.com, real estate and now bailouts) that

the Governments of the developed nations have unleash unchecked. For instance Greece has at 08-2010 a debt level of 135% of GDP. In turn these speculative bubbles sit on the financial economy which has enveloped the physical economy to the extent that there is no direct prudential 'oikonomic' link between the two as in indigenous cultures or with the long gone gold standard.

Industrialization has required a reversal of the hierarchy in which culture-based connectedness guided the technology-based connectedness present in all preindustrial, traditional societies. Vanderbert (2009a:54).

**Readers Note:** In this work the term 'physical economy' is used to describe the aggregate of goods and services produced by a given economy and as such includes technology as contrasted with the term 'monetary economy' which applies to the monetary aggregates now 30+ times the size of the physical economy. Other terms for the physical economy are natural economy and as such includes technology (indigenous cultures)

My view on remedy's: Firstly we see intimations of this for instance from the UK Prime Minister and the President of the US who have, in the past week (@03-03-2009); both said we need to manage our economy upward from our households not downward from international finance. These changes though are beyond the scope of this eBook although fourteen of the key changes are listed here:

- (1) Usurpation of the physical economy** by the monetary economy (see endnote iii)
- (2) Legal definition of the corporation** as a 'natural' person and its inherent non-viability as a business structure
- (3) the nature of the unaccountability of the international corporate context** e.g. the WTO etc. who regulate international trade – the playing field of the corporate – is beyond the nation state and unaccountable to the people of the world yet can enforce its decisions with deadly consequences – this is bitterly ironic and enantiodromiac for in spite of our protestations to the opposite as we move into the 21<sup>st</sup> C we collectively become less democratic.
- (4) Finance - Unregulated (inter)national finance** and banks
- (5) Transnational creation, yet no control, of capital**
- (6) Commodification, cannibalisation of the social fabric** that sustains the economy;
- (7) Commodification of human relations** inc. training
- (8) Immediate and planned obsolescence** that means discard, don't recycle, let alone reuse or repair
- (9) An economics which can only value something, if it is within its monetary calculus,** such that the ecological has to fit within the social and that within the economic, so the ecological is judged by monetary calculus

- (10) Nature's property rights** valued at 0 and the gaming of social values inc. the destruction of ecology and human rights in favour of the market
- (11) Lack of alternative measures of economic outcomes** inc. e.g. non financial denominations of superannuation
- (12) resource ecological and economic footprint** inc. impacts of population explosion including species extinction; runaway economic footprint to be included on National Accounts
- (13) Distortions in the progressive taxation** system to favour the rich and those active in the financial economy cp. active in the physical economy
- (14) Deeply entrenched structural corruption,** - private gain | public pain e.g., CEO's salaries etc.
- (15) Stock market and derivatives conflict of interest** - a case of conflict of interest as the stock market, now privatised and corporatised, relies in a turn-over charge, and hedge funds and derivatives make huge numbers of transactions per day; thus the stock markets profit thereby and become dependent thereon and beholden thereto Wildman (2009:6), Vanderbert (2009:a,b,c)

## Appendix F: Bush Mechanic Assessment criteria & protocol

### Artificer and Bush Mechanic: Defined – equal and different

In terms of this Project the two terms (Bush Mechanic and Artificer) maybe considered equivalent and different as per below. They are, apologies to Aristotle and his excluded middle, equal and different like two sides of the one coin or the inside and outside of a rotating Mobius strip where the inside becomes outside etc.

**Artificer/Bush Mechanic** -artificer [ar-TIF-iss-uh] a skilful or artistic worker, a craftsperson, one who is skilled in devising things and making things happen, an inventor bricoleur [brik-o-LEUR] tinkerer, Jack or Jill of all trades, someone comfortable in unfamiliar realms of learning and experience who tries things out until they figure out how to do something. More recently, qualitative researchers who ‘mix and match’ to create a research design which fits the research situation bush mechanic a person who fixes a car (or anything else) using wood, fencing wire, chewing gum, sticky tape or just about anything he or she can find to replace the part that is broken or create a tool to do a good job.

**Artificer Learning** - is an action learning process whereby someone applies their ingenuity and technical knowledge to improvise unique solutions viz. the exemplar project, to field challenges aimed at addressing big picture issues in ways that integrate various expertise areas, design and operational applications towards efficacious outcomes.

There are various ‘types’ of Artificer Learning:

- (1) **conventional** via. for instance the plumber also becoming an electrician and also builder in the conventional Uni (medical/dentistry etc.)/TAFE competency based training format (in reality this synthetic process doesn’t exist unless it is undertaken by a particularly committed individual
- (2) **Bush Mechanic** - generally an autodidact - as is the focus of this e-book generally the bush mechanic is emergent i.e. in an exigent context requiring ones ingenuity
- (3) **Artificer** – again generally an autodidact. This is an avocational calling wherein one devotes much of their life effort over an extended period 10yers plus go gaining deep and broad expertise (generally in excess of 10,000 hrs). Artificer maybe considered a technical/academic expression for the Bush Mechanic and in a sense an artificer is a lifelong bush mechanic.
- (4) **Indigenous Village Learning System** - IVLS - generally is (a) generalist↔specialist↔generalist in format, (b) linked to the production, distribution and consumption of day to day goods and services for use in our ordinary ‘lived lives’; and (c) is integrated vertically whereby kids and adults learn together. Wildman (2008:332-333).

**Bush Mechanic/Artificer defined in the narrow sense** is ‘someone who uses their ingenuity and technical knowledge to improvise unique solutions to field challenges’.

***Bush Mechanic/Artificer in the broader and deeper sense*** is in a sense a pre-fall concept<sup>xxxvi</sup> and as used in this book is ‘*an adult learner who is broadly and deeply technically skilled both in a participative and reflexively orientated manners with normative (ethically) and instrumental (technical-strategic) capabilities and who seeks to address key dimensions of the global problematique through prototypes by prioritisation, choice, design and implementation all aimed at acting ahead wisely towards a world transformed.*

Further (1) Artificer or Bush Mechanic in this sense in this eBook is used more as a decision making and action taking heuristic in a post-knowledge age economy than as a mechanistic algorithm in an industrial age economy’ and (2) Here we ask and answer the questions ‘Where is the wisdom lost in knowledge? And; where is the knowledge lost in information?’ So the artificer is an expression of ageless human wisdom about acting ahead wisely in a post knowledge economy, rather than a gadget driven tech head nerd of today’s instant fix generation or a back to Eden type effort to reclaim our lost pre-industrial age of innocence.

### ***Bush Mechanic/Artificer defined***

A Bush Mechanic/Artifice may be defined as *someone who has for instance, devoted some 10,000 hours (resource input) to the quest in line with her avocation and in this regard has, in cash, care and kind (resources contributed and used), designed and generated exemplar project(s), to the value of \$0.1mAUD, that braid thinking and doing, and that is/are demonstrably innovative, broad in application (link in several interrelated expertise arenas), functionality as best of class, adjudged by her peers and addresses the four principles of the Artificer of (exemplar project – practical demonstration, social holon – help others, global problematique – the big picture and action learning – self and others inc. mentoring). While is an emergent glocal criterion not foreseen/foreseeable in the above.* Wildman 05-2009.

A Bush Mechanic/Artifice may be defined as *someone who has for instance, (1) devoted some 10,000 hours<sup>xxxvii</sup> (resource input) to the quest in line with her avocation<sup>xxxviii</sup> and in this regard has, (2) in cash, care and kind (resources contributed and used), (3) designed and generated exemplar project(s), (4) to the value of \$0.1mAUD, that (5) braid thinking and*

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<sup>xxxvi</sup> **NB:** By pre-fall I mean, in line with Taylor (2005), a system of ‘knowledge as engagement’ that existed macrohistorically which braided and even melded thinking and doing. This system existed into the Neolithic period and was codified in the Cathedral towns of Europe and later as apprenticeships. It was progressively displaced with the emergence of technique (man as operator of the machine) cp. artificer techne (machine as extension of the human hand) during the industrial revolution and now exists more in shards and hobby sheds and kitchen tables than in any coherent society wide fashion.

<sup>xxxvii</sup> This figure and the \$0.1m AUD indicated quantum not precision and are indicative only and will vary from case to case. This particular figure approximates the time line for the archetypal Medieval Apprenticeship (7years), Jesuit novice period (again 7 years) and Doctorate (incorporating undergrad degree and Honours/Masters degrees) (again 7 years) and detailed by Gladwell (2008:Ch2 – The 10,000 Hour Rule, 288-9) who applies this rule to the time required for developing mastery as seen with such luminaries as Bill Joy (Sun Microsystems), the Beatles, Steve Jobs (Apple), Bill Gates, even Mozart). And in the Notes section pgs288-289 (Chapt 2) Gladwell quotes extensive research by others supportive ‘the 10,000 hours rule’.

<sup>xxxviii</sup> The exemplar can incorporate a number of practical sub-projects and indeed the overall project could be a meta-project, pattern or life plan which, can be held in the noosphere/the adherents head with the sub projects representing its physiospheric out-working and in-working.

doing, and that is/are (6) demonstrably innovative, (7) broad in application (link in several interrelated expertise arenas), (8) functionality as best of class, adjudged by her peers and (9) addresses the four principles of the Artificer of (exemplar project – practical demonstration, social holon – help others, global problematique – the big picture and action learning – self and others inc. mentoring). While (10) is an emergent glocal criterion not foreseen/foreseeable in the above. Wildman 05-2009.

**Note 1:** Exemplars are like the structural snapshot of one's life process.

**Note 2:** These criteria are derived from this series and are distilled into the following Table (Table 2). [maximum power principle – balance between effort and outcome]

**Note 3: Crosswalk between Bush Mechanic/Artificer Definition and Bush**

**Mechanic/Artificer Criteria (Table 4)** - Crosswalk to Table 4: (1) above crosswalks to criteria section 1 Table 2 ((1) to C1inT4); (2) to C3&4inT4; (3) to C2inT4; (4) to C3inT4; (5) to C1.5inT4; (6) to C1.7inT4; (7) to C1.7inT4; (8) to C8&9inT4; (9) to C5,6&7inT4; (10) to C10inT4.

### **Tabula ipsa loquitur and Volk Handwerker**

**Tabula ipsa loquitur** ~ The **bench** speaks for itself/herself (bench in Latin relates to the feminine; and 'opera' in Latin means 'work' – so *work-bench* becomes *opera-tabula*)

**Bench** in German is Bank so workbench becomes Werkbank

**Bush Mechanic** becomes **Volk Handwerker cp. Provincial/Illiterate Labourer** and thus includes sewing, cooking, gardening, DIY building and mechanicing from her Werkbank. Modern industrialisation takes the latter meaning where as the Artificer takes the former.

**BM/Artificer always** fits into a bigger picture.

### **Exploring Avocation and its relation to our Bush Mechanic**

Here we look unashamedly to avocational validation or avalidation for sort, avocation in the sense of counterpoint to vocation. A term often applied to 'women's work' viz. the 'smaller affairs of life' viz. home economics and volunteering or the care economy in general, an auxiliary activity. A calling away from A vocation that is an avocation even '*an irregularity and instability of purpose*, which makes them choose the wandering avocations of a shepherd or journeyman, rather than the more fixed pursuits of agriculture'. – Buckle (adapted).

An **avocation** is an activity that a person does as a hobby outside their principal occupation. There are many examples of people whose profession was the way they made a living, but **whose activities outside their workplace were their true passion in life**.

Many times a person's regular vocation may lead to their avocation. Many forms of humanitarian campaigning, such as work for organisations such as Amnesty International and Greenpeace may be done by people involved in the law or human rights issues as part of their work. Relates to Hobby which etymologically comes from the ancient words for 'small horse' as in child's hobby horse so don't get up on your hobby horse is similar to

saying ‘don’t go all avocational on me now’ and also to the adult saying of ‘he got up on his hobby-horse and raved at us for hours.....’.

Avocational in the sense of non mainstream and not seeking to be mainstream something that remains stubbornly outside pedagogy an apedagogy a ghost pedagogy a non-pedagogical androgogy, a syncretic recovery of the largely lost method of kids and adult learning.

### *Wither the Bushy and Avocational Sweet-spots?*

Here the sweet spot or prima mobile is artificer enactment this is the middle point in the infinity symbol that integrates Noospheric knowledge on the Left and Physiospheric practice on the Right. This would be grand to have this embedded in a web based clearing house.

Here I seek to bring the two sweet-spots together that is avocation and bush mechanic/Artificer and the point where the two sweet-spots overlay one another is, in my view, the exemplar project. Long may be the recovered bushy be avocational!! In this regard the Exemplar Project is like ones marriage offer to Gaia. Ones bride price for being on planet earth!! And thus the Exemplar becomes an incarnation of that love.

### *Avocational Labour Force (ALF) estimation*

An estimate of the relative size of the vocational Labour Force (10% labour force est.) is provided elsewhere in this eBook and avocational labour force is provided below.

Avocational Labour Force (ALF) may be defined as *the Labour Force i.e. 15-64yrs civilian population, distributed in avocational categories of avocational occupations involved in off-record cash, care or kind transactions in the following areas inc. kitchen, garden, clothing, home repair, automotive, shed, and misc.*

ALF category estimates are wrt kitchen, garden, clothing, home repair, automotive, shed, and misc. Are: 50%, 15%, 01%, 15%, 20%, 05%, 01% respectively (2010 Australian figures). Giving an average of 15% and from a gender approximate basis, females who traditionally undertake these avocational roles represent an average of 20% in the first three categories, and males re. the last three average 10% (approx). **It may be concluded that there are twice as many women as men in avocational artificer style occupations.**

## Four Dimensions of Experiential cp. Conventional, and Artificer Education

**Table 5: Using Kolb's Categories of Learning to Compare Various Populations on a Speculative Basis**

Kolb's Experiential Learning Categories	Australian Society actually produced	Status Quo Ed system aims at producing*	Actual Humanity	Conventional Pedagogy	Artificer Learn	Exp Learn
1 Concrete Experiencers i.e. doers	80	40	40	05	20	50
2 Active Experimenters i.e. artificers	20	05	30	05	50	20
3 Abstract Conceptualisers i.e. thinkers	15	40	25	80	20	20
4 Reflective Observers i.e. elders**	05	15	10	10	10	10
	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

**Source:** P Wildman 04-2003 \* Schools 'teach' the industrial model of roles, norms, compliance, instrumental action, concrete reality, and normalising expectations. They exercise their charter as a vehicle for exercising social coercion through custodianship, sorting, and stabilising. This is achieved through the 'hidden curriculum' of instructional and curriculum design, dress codes, discipline, schedules, non participatory authority of the teacher classroom, lesson schedule and curriculum, subservient role, grading, certification of the student. Henchey (1983) Education for the 21<sup>st</sup> Century: Canadian Imperatives, Ottawa: Canadian Teachers Federation - quoted in Shuttleworth 1993 [adapted PW] \* elders does not necessarily mean olders

Artificer then is a *predilection to enact through technique, innovation with regard to the human good i.e. 1→2→3→4→1* [PW 07-2004]. See the following contra-pointing of techne and technique.

**Technique – operativeisation and cognitivisation – operator's labour \$20/hr+\$5/hr oncosts=Σ\$25/hr Aust 04-2009** - technique without agency – in service of the autonomous tool – where the *lived life* of the technician no longer relates to his actions as a machine operative except in that he must be present for his shifts to fit its requirements – modern man is neither hands on, hands free or even thoughts on, he has become separate even non techne participative (no participative consciousness here thank you were postmodern!) - an 'instrumental' operative with his machine acting objectively on 'spiritless matter' – as technology becomes mindful it renders us handless – as we become handless we become personless and ultimately selfless, just try having a discussion sitting on your hands - a precise method or algorithm, for applying objective science based external objective knowledge of and skill in the application of that algorithm of operating technology by reactively applying tool, materials and skills to assemble directly a requisite article whose beauty and function have been externally determined by others. [*e.g. sequence of assembly*]. As a dialectic the Modern Western pedagogical system elevates the cognitive or noospheric to an elite status e.g. Higher Ed that totalises the physiospheric operativeisation e.g. Vocational Ed.

Technique primarily relates to Kolb learning category 1 – Voc Ed and category 3 for Higher Ed uniquely and respectively as no other support for setting the machine or buying the product are required nor are they taught in school or trade school – critical citizens or innovative citizens (categories 4 and 2 respectively) need not apply.

***Technique - experimentivisation integrating the two – craft labour***

**\$100/hr+\$40/hr oncosts=Σ\$140/hr Aust 04-2009** – *as in manuary (artificer) techne ~ is about the use of the ‘tool of tools’ i.e. the hand in the awakening of our agency and thus our sense of self, out of the mechanism of technique. So that the hand makes our human agency more aware of itself and can, unlike the eye, reflect on itself. Tallis (2003:31,40). In technique we have the concepts of agency, self and the constellation of – techne, touch, dexterity, design, intention, manuary and artificer..... To be touched is to awaken to consciousness and to be prompted to possible action. Here the hand like language makes infinite use of finite resources yet remains indeterminate. Indeed research shows that intelligence develops in parallel with this type of techne rather than visuality. A craftsman’s method or heuristic, for applying inter-subjective science through understanding, experience and skill in the application of that heuristic to the ‘D’esign process by interactively applying tools, materials and skills to artifice or shape directly a requisite article of beauty and function. [Technique is a PW word and counterpoints Technique]. Also see Makashini Magazine (Finish)*

<http://www.kaapeli.fi/eko.fi/magazine/dependence.html> .

Technique primarily relates to Kolb learning category 2 with the other categories in support.



## Bush Mechanic/Artificer Assessment Criteria

**Table 5: 50 Indicative Bush Mechanic Assessment Criteria**

BM Criteria	BM1.1a	BM1.1b	BM1.1c	BM1.1d	Σ
<b>1.0 Bush Mechanic/Artificer Experience (AE):</b>					
1.1 Areas (related   unrelated): a, b, c, d					
1.2 Location					
1.3 Years (hours)					
1.4 Learning Journey ( <i>learning length</i> )					
1.4.1 Intent/aim					
1.4.2 Learning milestones/objectives					
1.4.3 Sequence and Progress					
1.4.4 Level (end point)					
1.5 Braiding Thinking and Doing ( <i>learning style</i> )					
1.5.1 Creative Synthesis e.g. Exemplar Project					
1.5.2 Thinking					
1.5.3 Doing					
1.6 Learning Signifiers ( <i>learning results</i> )					
1.6.1 Output (Individual   Collective) 1.6.a I					
1.6.b C					
1.6 Outcomes/Achievement (I   C) 1.6.c I					
1.6.d C					
1.7 Demonstrated level of innovation					
1.8 Interface ( <i>learning width</i> )					
1.9 Documentation?					
1.10 Extant bushy network?					
<b>2.0 'D'esign process: PIDIL (100%)*</b>					
P: Prioritise area req. action (2% of project time)					
I: Idea (1% of p/time)					
D: design (3% of p/time)					
I: Implement (90% of p/time)					
L: Learn (4% of p/)					
[keep time & dollar records]					
<b>3.0 Cost records:</b>					
3.1 (Cash, Kind, Care) ** Yes/No					
3.2 How much has the project cost (C   K   C)	C   K   C	C   K   C	C   K   C	C   K   C	C   K   C
<b>4.0 Time records:</b>					
4.1 (hours/person/day) **					
4.2 10,000hrs: How long has the project taken					
<b>5. Journals:</b>					
1. Field					
2. Learning Insights ( <i>learning depth</i> )					
3. General Principles (Grounded Th. Cats)					
<b>6. Efficacy of constellated AE in completed EP:</b>					
1. Efficacy					
2. Technological transfer					
3. Collaborative test					
4. Conviviality zest					

<b>7. How does this EP address the 4 BM Ples?:</b>					
BMP1: Exemplar Project					
BMP2: Social Holon					
BMP3: Global Problematique					
BMP4: Learning					
<b>8. Adjudgment arena viz:</b>					
1. Techne					
2. Technological transfer					
3. Efficacy					
4. Personal insights/development etc.					
5. Learning's – breadth and length					
6. Depth (learning insights)					
<b>9. Adjudgment method viz:</b>					
9.1 Informal					
9.2 Self					
9.3 Peer					
9.4 Formal structured assessment					
9.5 Personal insights/development etc.					
<b>10. Emergent criteria:</b>					
10.1 Emergent criteria Not Covered Above (NCA)					
10.2 Your criteria (NCA)					
10.3 Collective criteria (NCA)					

**Source:** P Wildman V8: 04-2009 comm. 06-2005 NB: recording to be in dollars, hours, words (prose/poetry) & pictures. \* %'s are indicative only based on my experience in undertaking and observing several EP's; **\*\*Charge out Rates:** further hours are to be calculated at B2B (Bushy To Bushy/mates rates). For instance in Brisbane Australia in 1997 dollars Mechanic charge out rate was \$80 average (\$180/hr for BMW car maintenance). A B2B rate would be about 1/4er to 1/3<sup>rd</sup> of this viz. \$35/hr (when I was undertaking the principal parts of the project the B2B rate was \$25/hr for the Artificer and for myself I costed my rate at a B4B (Bushy To Bushy) rate of \$10/hr. Travel for the B2B rate was \$15/hr for Don, the Artificer, and for myself \$10/hr.

**Applying these criteria:[application; adjudgment; results; outcome]**

(1) Application of this matrix: To be completed interactively over a period of up to several days with the interested person/prospective Artificer – in order to output the completed matrix.

(2) Adjudgment of the completed matrix: would be **considered and adjudged by three peers** (1) one independent, (2) one involved in the matrix's completion and, (3) one nominated by the prospective Artificer.

(3) Results of the Adjudgment: On a majority basis the prospective Artificer will be notified of (1) acceptance, (2) need to strengthen certain parts of the matrix – this may take time as experience (*not expertise*) is involved this is not to be an editing process and, (3) non acceptance (until certain basic areas of need for additional experience *and expertise* are addressed).

(4) Outcome from the Adjudgment: (1) Notification in writing of the above, (2) Granting the informal decree of Artificer and (3) Listing on the KALGROVE web site Adult Learning

section, (4) the Artificer so adjudged agrees to act as mentor for Apprentice and Artisan Artificers.

## Appendix G: Explicating this thing called Pedagogy the ghost in our Zeitgeist

### Some Historical Origins of Our Inherited English Zeitgeist Pedagogy

Plato's Heavens Rim: Further I have explored Plato's heavens rim philosophy whereby the intended end of a good life would be to sit on heaven's rim listening (though not joining in) to the gods' converse. When joined with the primacy of thinking over doing that these, and other, tracks in our Zeitgeist we have the defining aspect of pedagogy today the separation of thinking and doing into structurally discrete aspects of education with the former valorised as 'higher ed - thinking' and the latter pejoratised as 'vocational ed - behaviour'. Agreed the origins in the West's Zeitgeist go back to Plato, who has a lot to answer therefore, however where are the immediate origins of our present Pedagogy?

**Pedagogy historically:** In 1570 Roger Ascham published the first book ever written in English on pedagogy. This was a foundational book and was used for centuries well into the Industrial Revolution and even into the 20<sup>th</sup> century. In this book he set out three key precepts on pedagogy that have underpinned English pedagogy ever since: (1) education needed to produce 'hard wits' not 'smart wits' or what we may call today 'smart arses' that is kids who knew heaps but understood little; (2) spare the rod or spoil the child – go easy on the birch as he called it the 'butchery of (and used to teach) Latin'; and (3) that the attainment of wisdom had to recognise that **'learning from a book, or from a teacher, is twenty times as effective as learning from experience'**. Abbott and MacTaggart (2010:85-86).

This was then melded in with the worker requirements for the Industrial Revolution for repetitive brain dead labour six days per week. The utter counterpart of village craft and the sorts of independent thinkers and doers that such kids and adults apprenticeship/mentoring type learning produced. **So in 1080 a Quaker Joseph Lancaster proposed a cheap, mechanical form of mass schooling based on the monitor system of pupil-teachers.** And thus we have the DNA of today's schooling system a cheap mechanical pedagogy that these authors argue has not changed much from the 10<sup>th</sup> C. Abbott and MacTaggart (2010:76, 93).

This was codified in the UK Parliament in 1808 in its parliamentary papers 'giving education to the labouring classes and the poor would in effect be prejudicial to their morals and happiness. It would teach them to despise their lot in life; **instead of making them good servants in agriculture m and other laborious employment** to which their rank in society had destined them for it would be insolent to their superiors'. Abbott and MacTaggart (2010:93-94).

It could be argued that education in its English origins was a form of charity to keep children off the streets so their parents could work longer hours in the emerging factories. Indeed Abbott and MacTaggart (2010:95) quote one educational official of the time as saying in 1841 that **'little else is required of a teacher other than an aptitude for enforcing discipline and acquaintance with mechanical details for preservation of order and that sort of ascendancy in his school which a sergeant major is required to exercise over a batch of new recruits'**.

So by and into the Industrial Revolution education in the English tradition had been firmly established as based on ‘(1) word teaching, (2) rote-learning, (3) memory-loading is still disguised by the name of education’. (adapted Paul Wildman: Abbott and MacTaggart (2010:94).

### **Kids, the Bushy and the Curriculum**

**The fascist background to this thing we call Pedagogy. From Modernity’s inception, text was seen as too threatening to the State to allow for more than 10% of students in the Prussian system** Gatto (2006:137) in the early 1800’s in Germany **Akadamiensschulen** (1% students – liberal education – deified text) and the **Realschulen** (Professionals – 8% students – mgt managers for the 1%). While **Volksschulen** (90% students – Vocational education discounted reading and text). In turn this sits on much more ancient even Aristotelian preference some 2500years ago for text technique over technique over as the latter being more suited to slaves. Indeed Gatto (2006:97) declaims that Mussolini was a school teacher as were Mao and Lyndon Johnson

Learning in a democracy belongs to the whole community, not to any centralised pedagogical monopoly. Gatto (2006:361-366). To reform the educational system will require nothing less than the whole community’s active engagement in an imaginative/’imaginative’ partnership. He continues by arguing that in the past generation as our freedoms and liberties and imaginings have been increasingly eroded Gatto (2006:352) public imagination, indeed to an extent our very Zeitgeist, has had to be manufactured from central command centres through structures such as think-tanks and various flavours-of-the-month

Practical minded kids pay a heavy price from enforced confinement. Yet nothing could be done. It was a worthy trade-off. James Bryant Conant (1959). *The American High School Today* he also argued that the nature of the industrial process required the view that the family and educational systems were key nested systems supporting same. School then is a conflict pitting the needs of social machinery against needs of the human spirit. Gatto (2006:318-322)

In America in the policing conceptually included training of youth viz. the WW1 1915 era American Protective League (APL). [Horace Mann (1796-1859 – an important American educational reformer and a member of the U.S. House of Representatives from 1827 to 1833] Mann served in the Massachusetts Senate from 1834-1837) once said ‘**School is the cheapest police**’ – in America 1850. Gatto (2006:56&231). Essentially massified commodified and compulsorified education’s role is to stabilise social order and prisons to protect same, and to train the rank and file as operatives in a massified, commodified and consumptified society. Gatto (2006:256). The role of the modern worker then is not to produce any longer by his own initiative, but to execute punctiliously the orders given down to their minutest details as per Frederick Winslow Taylor 1872. Taylor’s scientific management was designed Gatto, J. (2006:171-173) ‘to make the workers ‘an interchangeable part of an interchangeable machine making interchangeable parts’. This is FWT’s response to the demands of industry for education for a ‘practical age’ for ‘practical men’ Gatto (2006:175) which requires repetitive (not skilled use of individual initiative) use of the hands.

Nobel Prize winner Harrison Brown *The challenge of Mans Future* (1954) Gatto (2006:161) suggests the carrying capacity of the planet is 50-200b and added that unless curtailed through

compulsory education *'If humanity had its way it would not rest content until the earth is covered completely and to a considerable depth with a writhing mass of human beings much as a dead cow is covered with a pulsating mass of maggots'*

*Ninety-nine (students) are (now) automata, careful to walk in prescribed paths careful to follow the prescribed custom. This is not an accident but the result of substantial education, which, scientifically defined, is the subsumption of the individual.*

[and he continues]

*The great purpose of school can be realised better in dark airless ugly places.... It is to master the physical self, to transcend the beauty of nature. School should develop the power to withdraw for the external world.* William Harris, the US Commissioner for Education 1889-1906 in his 1893 book *The Philosophy of Education* quoted in Gatto (2006:105-106).

Gatto. (2006:152-154) It takes no great insight or intelligence to see that the health of a centralised economy built around dense concentrations of economic power and a close business alliance with Government can't tolerate a considerable degree of intellectual schooling and independent livelihoods. Indeed what ordinary folk call religions truth, liberty, free will, learning, family values that idea that life is not about the central question of consumption or getting rich all these have to be strangled, and are in the process of scientific schooling, in the cause of progress, science and mass production and consumption.

School is Homodox not heterodox and is about centralising conformity not harmonising diversity. Gatto (2006:104). Harris also celebrated that 'scientifically age graded classrooms were replacing the successful and diverse mixed-age school practice used in the American Republic to that date'. Here self-alienation is exposed as the secret weapon of the industrial society.106

So deeply buried has been the connection between schooling in all its aspects and the nature of the Nations work (in coal), that it will cost you considerable effort to understand this link. 149. Coal during the IR and later Oil relentlessly forced a change in our relations to Nature and to our nature that is to ourselves which can be seen especially in schooling. 149

## **General**

**American Education System is very successful:** Gatto (2006:151-152) argues that American could not have had the unprecedented global and spectacular material wealth that is ours without a second-rate educational system, upon which whose inefficiency in developing intellect and character they depend. If we educated better we could not sustain the corporate dystopia we now have which relies on conformity and consumption with an oligarchy outside normal jurisprudence. Our schools build national wealth by tearing down natural resources personal sovereignty, community resilience, morality and family life. **This is third rate education at work but, in the short timer pedagogy works!!**

Gatto argues that massified schools were necessary at the end of the 1800's as massified industry no longer needed child labour and mass consumption was looming as a pre-requisite for continuous growth. Gatto (2006:165)

Gatto (2006:314) quotes from ~ *Autonomous Technology: Technics-Out-of-Control* by Winner, Langdon (1989):

*(Today) society is composed o persons who cannot design, build, repair or even operate most of the devices upon which their (our) lives depend..... In the complexity of this world people are confronted with extraordinary events and functions that are literally unintelligible to them.*

*In short they are unable to give an adequate explanation of man-made phenomena in their immediate experience. So they (we) are unable to give an adequate explanation of man-made phenomena in their (our) immediate experience. They are unable to form a coherent, rational picture of the whole. Under these circumstances all a person can do and indeed must is accept a great number of things on faith.... Their way of understanding is basically religious rather than scientific of belief rather than understanding) only a small portion even of one's everyday experience in the technological society can be understood.*

*The plight of members of the theological society can be compared to that of a newborn child. Much of the data hat enters our senses does not form coherent wholes.*

*Winner (1989) continues with a call for: tools of intellectual synthesis. (He continues) I must report I found no such tool in practice. I have surveyed the various candidates for this honour – systems theory and systems analysis computer science and artificial intelligence new methods of coding great masses of information the strategy of disjointed incrementalism and so forth. As a relief for the difficulties raised here none of these offers much help. The systems idea is another – and indeed the ultimate – technique which will shape man and society. (PW)*

Winner, L. (1989). *Autonomous Technology: Technics-Out-of-Control*. Quoted in Gatto (2006:314)

## **Backgrounding Pedagogy**

### ***Causal Layered Analysis and Synthesis on Status Quo Pedagogy***

TBA

#### ***The Bushy at both ends of the so-called 'intelligence bell curve'***

Clearly it can be argued that the Bushy approach even if recognised as having some marginal potential suits disadvantaged youth at best a small sub-group of at risk kids. This at least I argue is the wedge of relevance even efficacy that I posit challenges us to look further.

**In the case of gifted and talented children** within a year of commencing practice say on a piano the children's brains are neurologically different. From about 15mths to three years of life the differences emerge markedly and measurable and neurologically. The key role of the brain is to ensure the emergent hard wiring occurs in the correct sequence and locality. Thus physical activity reinforces different neurological areas than cognitive activity such as reading or playing computer games does. And after a year these differences 'are organically measurable' that is nurture changes nature. Like in the puberty years and then in the later

years of life, in the period up to three years (esp. 15mths to 3yrs of age), the brain executes parts of itself under the algorithm of ‘use it or lose it’.

Research has shown that these neurological changes **are permanent**. And generally lays the ground for a Life Long Love of Learning, even self directed accelerated learning. So what can start as a propensity can be continued as practice then embeds itself in one’s life as praxis. There seems to be an amalgam between: aptitude, genetics, and supportive environment, strength of will or drive to master, strong commitment to practice.

Exposure to a one size fits all schooling is a particular challenge to this custom designed individualised leaning pedagogy and can often include large amounts of home schooling.

**Likewise in the case of the physically, intellectually and emotionally challenged children** often there has been a vital gap in the development process. For instance children locked away from adult input or care and concern for these years suffer permanent brain damage. This can cripple the child for life.

Neurological stimulation comes from various sources such as food – nutritio, sound - audio, music – musico, contact – relatio, reading – cognito, movement – kinetics – kinetico, hands – chiro. This is somewhat like the Pygmalion effect where poor children subject to a rich and diverse stimulatory environment can achieve at the peak level. This then broadly relates to Gardner’s multiple intelligences. Here we find some children gifted and some challenged because we judge them according to a one size fits all measure of intelligence. Authors such as Gardner (1983), see also the ABECEDARIAN PROJECT<sup>xxxix</sup>, and Gatto (2006) argue

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<sup>xxxix</sup> **Abecedarian Early Intervention Project:** [http://en.wikipedia.org/wiki/Abecedarian\\_Early\\_Intervention\\_Project](http://en.wikipedia.org/wiki/Abecedarian_Early_Intervention_Project)

The Carolina Abecedarian Project was a controlled experiment that was conducted in 1972 in North Carolina, United States, by the Frank Porter Graham Child Development Institute to study the potential benefits of early childhood education for poor children to enhance school readiness. It has been found that in their earliest school years, poor children lag behind others, suggesting the fact that they were ill-prepared for schooling. [1] The Abecedarian project was inspired by the fact that few other early childhood programs could provide a sufficiently well-controlled environment to determine the effectiveness of early childhood training.

The participants in these experiments were 111 infants born between 1972 and 1977. Of these, 57 of which were given high-quality child care while another 54 acted as a control group. An overwhelming majority (98 percent) of the children who participated in the experiment were African-American. The average starting age of participants was 4.4 months.[2] Whereas other childhood programs started at age two, the Abecedarian Project started from infancy and continued for five years, a period longer than most other programs. The participants received child care for 6–8 hours a day, five days a week. Educational activities were game-based and emphasized language. The control group was provided with nutritional supplements, social services, and health care to ensure that these factors did not affect the outcomes of the experiment.[3]

### **Significant findings**

Follow-up assessment of the participants involved in the project has been completed. Progress was monitored at ages 3, 4, 5, 6.5, 8, 12, 15 and 21. The areas covered were cognitive functioning, academic skills, educational attainment, employment, parenthood, and social adjustment.

The significant findings of the experiment were as follows

1. Higher cognitive test scores due to enhanced language development
2. Higher academic achievement in both reading and mathematics
3. More likely to attend college

against this approach even maintaining the bell curve exists not in the world at large but more as a product of our measuring methods and worse this generates a self fulfilling prophesy for those especially at the bottom end of the curve.

In my view each of these learning modes is underpinned by the chiro as the feed in to stimulate the child's brain. For example: Nutrio – feeding oneself, Audio – adjusting volume, and channels etc., musico – playing a musical instrument, writing music and turning pages, relatio – holding hands, caressing, hugging etc., cognito – holding and page turning in a book or game, kinetic – dance, chiro – gross and fine motor skills needed including differential finger movement for all of these learning modalities. In a broader sense chiro can be seen as a metaphor for bodily movement – however it also extends, in this context, to include fabrication making for providing an expression of one's ingenuity through ones hands.

### *What is this creature we wrestle with? – this elephant in the room*

[The story began in 1958, when Eisenhower received a letter from Robert Biggs, a terminally ill World War II veteran. Biggs told the president that he 'felt from your recent speeches the feeling of hedging and a little uncertainty.' He added, 'We wait for someone to speak for us and we will back him completely if the statement is made in truth.'] President Eisenhower explained to Biggs that Hoffer (a well known American social writer and commentator of the time) 'points out that dictatorial systems make one contribution to their people which leads them to tend to support such systems — freedom from the necessity of informing themselves and making up their own minds concerning these tremendous complex and difficult questions'. He continued 'The authoritarian follower', Eisenhower suggested, 'desired nothing more than insulation from the pressures of a free society'.

<file:///C:/Users/Paul/AppData/Local/Microsoft/Windows/Temporary%20Internet%20Files/Content.Outlook/PWR9LV1W/Op-Ed%20Contributor%20-%20Ikes%20Other%20Warning%20-%20NYTimes%20com.htm>

Furthermore Gatto (2006:12-13) claims that the Athenian and liberal form of education educates the individual to achieve their potential. Origins can be located e.g. Hobbes, Thomas (1588-1679) say 1650's – experienced based – needs met though social relations – reflexive engaged – individual enlightenment. The Spartan which has become the modern Lockean form of education educates the individual to fit in as a cog in essentially a machine society.

[Locke, John (29 August 1632 – 28 October 1704) – Locke maintained that people are born without innate ideas so education had to be one way and curriculum based – needs met through economic isolation – tabula rasa – human resources – social control of behaviour – homologue of chemical control of behaviour via. Ritalin or Prozac, no risk, no challenge, no intentionality, no agency – just absence of pain – absence absence to prepare for infill thorough education for the program for the State to write on the Student as Tabula Rasa. Indeed we could even propose a classroom based **Ritalin fogger** to deaden students (esp. boy's) urge to artifice. And guess what in a sort that's what's happening. Crawford (2009:73).

Thus we have a clean canvas individual and society. Links can be traced back to Socrates and Plato 500BC. 271-273, CBT, Chinese, **Prussian**, massified society, compulsory uniform education, operative conditioning, operant conditioning, Pavlov, Taylor (1920), Skinner (1970). The human creature is purely a stimulus-

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#### 4. Later childbearing.

The project concluded that high quality, educational child care from early infancy was therefore of utmost importance.

behaviour machine. Consciousness is a useless and vicious superstition. Gatto (2006:272). Materialism then may be seen as a form of hard empiricism even imperialism, whereas exuberance enthusiasm and consciousness are little but vicious superstitions].

**Pedagogery** (a neologism) where **Pedagogy as Pedagogery design takes the participants out of the learning systems design loop:** Systems don't cry: Systems, inc. corporations, don't care as a parent would care, can't be 'trusted', don't have 'integrity' in the human sense, and don't value individual agency so that free will, individual choice are rejected by the likes of Dewey. Gatto (2006:269&277). As Gatto explicates systems and corporations have no tear ducts with which to weep. Gatto (2006:304). Pedagogery is about intense intellectual centres and efforts Gatto (2006:14-15); thus scholasticism the British version of Spartan/Hindu educational system interregnum.

The Pedagogues drill their underlings in the memorisation and imitation of desired attitudes and these underlings as prefects drill us, the rest Gatto (2006:19). Indeed the word Pedagogue is Latin of a specialised type of slave assigned to walk a student to the Schoolmaster. Gatto (2006:13) Free men will never be pedagogues or be subject thereto.

**Pedagogery then sees education as about socio-economic efficiency** required for mass production and consumption and social efficiency requires the standardisation of the curriculum which leads ultimately to the standardisation of the human unit throughput i.e. standardised students. Gatto (2006:163). In turn this requires compulsorily extracting students from their lived life and extending adolescence into at least the early 20's. In short compulsory schooling will not work as long as students are allowed to be useful in real life.

**Bureaugogery** (a neologism) whereby Pedagogy ad Bureaugogy viz. 'The State' colonises lifespace with fixed National standardised curriculum from 2to20, from childcare to high school and beyond with a 'father knows best' type condescension, including an ID card for all Australian Students. Removal of play in the early years and invocation of harsh penalties such as income maintenance or jail for the parents who don't compel their kids to go to school and then **compel** the adolescents to sign an training agreement with the State that effectively removes them from the unemployed lines.

**As a case in point:** consider the Australian National Preschool Curricula (ANPSC) just announced as at 04-2010 to come into effect 2011. Chilcott (2010:50) outlines the National Curricula for preschool (4-5yr old! for heaven's sake) – no where are the games, fun, play, socialisation, projects, trips, excursions, gross or fine motor skills, no chiro skills as ends in themselves. As they say in bureaugogy and pedagogery land 'kids aint kids anymore'. This is a case of the High School Curricula writ small not Childhood writ large – where children can be children and learn through play to be creative, socialise, learn rules of the road and learn the beginnings of discovery and action learning.

The New National Curriculum is split up into the classic industrial categories of 'the 3R's, English, Maths, History and Science the same as the other years of primary and indeed secondary and indeed higher education. In turn, and the 'eureka moment' approaches, these are the categories tested in NAPLAN *myschool* uniform testing <http://www.myschool.edu.au/> – the national test now on the web at my school (**Categories:** Reading, Writing, Spelling, Grammar, and Arithmetic). Indeed a relative of ours a 'senior maths teacher' said the

Victorian Education Department had decided to ‘teach to the test’. Further the extant National Australian Pre-School Curriculum (NAPSC) 4 yr olds is an **analytical (not synthetic)** one whereby the curriculum specific **curriculum components** remain unconnected and unsynthesised. These components are then continued throughout the entire subsequent curriculum for the higher years. So in this crucial instance the pre and early years school curricular are high school pedagogy writ small.

This eBook and others have clearly shown that early childhood learning needs to be individual, child and play focused braiding (not separating or conflating) the practical with the abstract. In short NAPSC is none of these. Nevertheless it does continue the method of identification and elevation of an elite intellectual cognoscente’s class that develops out of this division i.e. the division of thinking (analytical) and doing (synthetical), between mental and manual labour that continues the both disciplinary silos and the distinction between sacred and scholarly knowledge and profane lived life knowledge.

**What is missing in the National Curriculum? Considering the NAPSC in relation to the criteria established in this eBook for efficacious pedagogy it can be said that the NAPSC contains no:**

Fractal (unitary), provisional (ex cathedra), flexible (fixed), student centred (curriculum centred) and open ended (closed one way) co-learning (teacher down) process that includes: (current pedagogical system in brackets) -

- (1) (Intelligent Narrative) Play (INP) – bildung play
- (2) Local programming and space for local innovations focus on local space or place for community service etc.
- (3) Referent to the student’s lived life or community viz. blending of the sacred/academic knowledge and the profane/lived life of the student knowledge, and last but not least
- (4) Parent or community involvement in curriculum priorities or development (both of which have been automatically subsumed by ‘elite bureaugogues’ in Canberra or necessary parent or community involvement school decision-making
- (5) Citizenship – logistical, critical and ‘actival’ (PW neologism meaning proactive)
- (6) Section on sharing, caring and empathy
- (7) The savage / the Artificer inc. ‘dexterity central’ and ‘project focused’ viz. the 3H approach as central (Head, Hand, Hand) viz. linking of thinking and doing the curriculum for preschool and on is trenchantly noospheric and does not embrace a ‘plurality of projects’ as experimentations
- (8) Making with the hand as mediating the physical emotional and physical development of the child inc. arts, crafts, music or dance see (1) INP
- (9) Emotional warmth and affective component inc. security and involvement
- (10) Creative or novel or spontaneous ‘aletheia’ experience
- (11) Reflexivity/Action Learning – rationality, practicality, mutuality and morality
- (12) Futures awareness and agency component – prohairesis and phronesis
- (13) Entree to the aim of education viz. living joyous flourishing sustainable/creatively evolvable lives (embodying bildung formal structural self formation - Germanic, and vospitanie informal self formation via. family etc. – Slavic, and alternative visions of the good life and lives – Greek, the good life as spiritual life - Hindic). Arenas (1999:5), Wildman (2010:218), Whitehead (1949:18)

Finally this all needs to be considered alongside the decision to introduce a Student ID card for all Australian students from 2011. The nightmare just gets worse.

In short no proactive or local anything except 'C'ompliance viz. 'C'onformance.

Now not every curriculum can contain all of these and all curricula contain some of them in some regard but as **subsets and consequences of achieving principal curricula NAPSC/NAPLAN components and not as principal curriculum components**. Further the NAPLAN (National Assessment Program in Literacy and Numeracy) categories are useful – but not, in my view, prime. Further NAPLAN tests were designed to be only ever diagnostic for individual students and never comparative between students, schools and States. Nowhere is the fear and compulsion implicit and no overt in our pedagogy acknowledged such as that induced by proscribed intervention usurpation of land rights and income maintenance acknowledged (as at 05-2010). Finally there are various important components such as Indigenous culture. sorry day and how plants live. Notwithstanding this however Gone With the Wind for example is the innovatory Action Learning and local creativity inc. intelligent narrative play program, and other curriculum innovations like it, introduced in the decade leading up to the advent of the National Curricula for instance in our 20 or so managed Child Care Centres under the program 'Kids in Active Learning'.

*Cognitive Pedagogical Therapy (CPT)*: is, I argue, is at the heart of curriculum: CPT belies its Skinnerian origins. And this in turn belies its origin in the belief of the malleability of human nature the child as tabula rasa which belies its links to Taylorism of programming the individual to perform certain basic repetitive operations as extensions and ephor 's and prefects of Taylors industrial empire. Which in turn belies its origins in the much admired Prussian Compulsory Massified School system of the mid to late 1800's (a form of ex-utero eugenics) again which belies its origins in the view that the individual is to serve the State, with its categories of functionaries a Hegelian concept of State which required homogenisation not harmonisation as a prelude to mass consumption. A sure sign of this in Gatto's (2006:265) terms is the presence of an instrumental psychology. Thus the State is to be served rather than to serve the Individual who each has a separate path, and to seek the utmost development of the individual's potential. Gatto (2006:261-262).

Gatto (2006:16) claims the **Chinese** character of school shows passive kids with adult's hands pouring in learning and knowledge into his/her empty head. Human life, inc. organic life is here seen as a mechanical process which is by definition mindless a tabula rasa. Gatto (2006:277). So since one does not educate mindless machines rather one adjusts them and their behaviour as that is all they do – operate, to the required settings Gatto (2006:278). So in accordance to the psychological manual of teaching of Thorndike and the like the aim of a teacher is to facilitate this 'adjustment' and to produce certain 'responses/behaviours'. Here IQ was considered to be set at birth and virtually unchangeable over one's life thus diagnostic and vocational testing was made possible. Gatto (2006:279). Here **'humanity as agentic individuals' is an illusion**; rather the human is a mechanistic agglomeration of physiological facts. Gatto (2006:279).

*Do we serve pedagogy or does pedagogy serve us?*

As President Kennedy said in the 1960's 'ask not what your country can do for you but ask

what you can do for your country'. In this somewhat Prussian model life's purpose is to serve the State the individual has no unique attributes, no individual role or skills, no potentials, no empathy, no 'mind', no consciousness, no 'humanity', no vertical dimension all is horizontal, no integrity, no agency, and no (need for) hope, and thus no ego, other than that. What we have at bedrock is the enlightenment's Newtonian hard empiricism of machine emptiness a machine tabula rasa. No approved school curriculum is available that sees students as self-determining, spiritual individuals with integrity, agency, potential and a yearning to become.

Significance lies on the surface of things encountered or experience. Deep structure is irrelevant and where it is unavoidable the invoking of *ceteris paribus* does the trick. *Ceteris paribus* means 'all other things being held constant'. Here intelligence as an innate rather than plastic or mechanically developed feature of the individual student does not exist. In this sense people who have not gone through school cannot be called civilised a sort of *cognito nullis* just as with colonisation of Australia *terra nullis* was invoked because no buildings or 'civilisation' existed therefore the land could not be inhabited by humans.

Importantly Gatto (2006:264) argues however that pedagogy finds experientially that children are otherwise inclined with innate ability to learn and self direct and self organise such that this inner integrity has to be forcibly fractured so that it can be realigned to state/corporate service. So that from the time these self organising traits become evident i.e. year 6 this psychological fracturing through the iron fist of pedagogy commences and by year 7 i.e. 12yrs the child's psychology is fractured and such that he or she is at war with themself first and then a year later his parents and a year later again, ultimately the world.

Gatto (2006:320-321) maintains that Alexander Inglis in 1918 near the end of the US school revolution identified in his classic named unsurprisingly and quite disarmingly 'Principles of secondary Education, the following principles: (1) adjustive; (2) diagnostic re via school guidance to 'proper' occupational and social roles, (3) sorting education only for (2), (4) conformity, (5) hygiene – soft eugenics embodied in the above four principles and (6) preparatory for the elite group of guardians to take over management of the system while the rest are dumbed down. *Schools were being expressly created to serve a (corporate) command economy and command economy*. See also Inglis (1918)

## Types of Pedagogy

[Also see Appendix H for a list of a further seven pedagogies]

Many who subscribe to progressive pedagogy see 'education as the latest and highest form of evolution' Gatto (2006:185). Which when seen collectively as World Process links to World Systems Theory and the Hegelian Historical Dialectic. Given this then 'scientific' education as the cutting edge of evolution even Social Darwinism has to be 'protected from the masses' rather than developed 'with them'. Moreso though as conventional mechanical Christianity fell away over the past century through the depredations of World Wars, global famines and financial crises, evolution has become the new religion of the West and has replaced conventional religion.

As such the faceless 'curriculaucrats' protect their right to social engineer, having removed this right from parents families and communities, as almost a sacred calling towards the

betterment of humanity. So that education here becomes the new black the new Christianity viz. stratified entry into the ‘fundamentals of an everlasting faith as board as human nature and as deep as the life of the race’ Gatto (2006:186). Here there are two ways of understanding for instance the term ‘scientific pedagogy’ (1) is as science applied to the way children learn and (2) children learning about science. The reader needs to keep this in mind when considering the following, which are arranged alphabetically.

Pedagogy like mortgage derivatives can be sliced and diced several ways and the following are simply one such way. They are not necessarily mutually exclusive and **please note** there are several spiritual/Gnostic/tantric type pedagogies that are beyond the scope of this eBook.

**1. Academic Pedagogy - technological:** [See: Akademos Pedagogy in Appendix H]. Here learning is noospheric and textual and derives from books also called book learning, also known as doxology the received wisdom etc. In terms of this pedagogy’s resiliency one only has to look to is mutations into for instance what I call High Intensity Pedagogy were we do more even double of the same – so children would go to school for say 50 hours per week and is based on ‘scripted lesson plans’ viz. more at ‘directed’ or ‘set piece’ instruction. Here the embedded value is that the context that is the children’s family situation is the cause of the problem and so here we see pedagogy uncovered as it slowly removes children from their parents and their lived life. Gatto (2006:28). Such a mutation has emerged, and where else but in the USA, it’s called **Direct Instruction Methodology (DIM)**, and in many ways the obverse of the **Artificer Learning Pedagogy (ALP)**. DIM blends **Back To Basics (BTB)** of more time at the three ‘R’s’ as well as excursions and uniforms. Watkins (1997).

The dilemma becomes about what to do with education when the home environment – the lived life – becomes toxic. Tragically this is the instance in many intensely disadvantaged areas. Here DIM takes the student out of the environment and leaves it to stew in its own juices so to speak (a sort of in-situ stolen generation) whereas ALM seeks to rebuild the environment – futile in some instances. A blending of both approaches is needed.

**2. Artificer Pedagogy:** [See: Techne Pedagogy in Appendix H].one that facilitates the Bush Mechanic in Kids and Adults Learning – see also Experiential P, Volk P and Revolutionary P. Notwithstanding even the futility of action and indeed the significant misgivings the Romantics, who sought to re-establish and reassert the mythic as a counterpoint to its extirpation by the enlightenment, had for the indeterminacy of its outcomes and the ambiguous ethics underpinning action itself, they nevertheless advocated action as a vital component of self-realisation. **Romanticism may be seen to represent a militant humanism even, that braids imagination, creativity, action and agency thereby refusing to let language gain ascendancy over what it is to be human and in particular they see language as an expressive, not determinative, human faculty.** Lockridge (1989:37).

**3. Behaviourist Pedagogy:** (PW) – Skinnerian pedagogy where learning is conflated with conditioning (see scientific Pedagogy below). This is the underpinning of Vocational Education nowadays esp. for instance in Australian with Competency Based Training represents commodified behaviourism – discussed at length elsewhere in piece and series.

**4. Business Pedagogy:** Education is a commodity to be profitable to the University and competitive to the student practice what Darwin preached 'survival of the fittest and ablest conforming student's' and paid for and to demonstrate its worth by improving profits and career opportunities (e.g. International Management Centres – IMC, MBA's). Pedagogy is to be denominated within the umbrella of business life/life in business/life is business.

**5. Conventional Pedagogy:** (PW) that evident in the organisation of mass compulsory education today – see Mechanical Pedagogy.

**6. Experiential Pedagogy:** [See: Praxis Pedagogy in App H]. Here learning is contextual and derives from ones experiences; ones lived life so to speak. See also Gatto (2006:34).

**7. Project Pedagogy:** Despite considerable potential, project-based learning is not without its challenges. Project management, whether it is on the job or in the classroom, requires context, structure, skills and process. Lacking adequate support, this innovative educational approach will not be widely adopted by students or teachers. Educators need help in choosing appropriate project-based learning content and introducing, managing and assessing educational projects that support their required curriculum standards. Students need help in planning and organising their projects. Fortunately, there are a number of organisations that are substantial resources for project-based learning – see below.

**NB:** these resources remain firmly within modernity's conventional pedagogy, inc. 'E'ducation, 'T'eachers, 'C'lassrooms, 'S'tudents, 'C'urriculum, externally expert defined 'S'tandards and 'A'ssessment, externally chosen choice options for projects, extant power relationships, Age Cohort separation into grades, separation of Androgogy and Pedagogy and even Kids (<6yrs) from Young Adults (>13yrs), separation of Higher Ed and Voc Ed. These resources do however indicate that a physiospheric initiative/project is now accepted into pedagogy in other than Voc Ed. Indeed one quote is saw said 'direct instruction does not assume that students will develop insights on their own'. **Resources include:** George Lucas Education Foundation [www.glef.org](http://www.glef.org), iEARN [www.iearn.org](http://www.iearn.org), Make It Happen [www.makeithappen.ws](http://www.makeithappen.ws), New Tech Foundation [www.newtechfoundation.org](http://www.newtechfoundation.org), Partnership for 21<sup>st</sup> Century Learning Skills [www.21stcenturyskills.org](http://www.21stcenturyskills.org), Project Lead the Way [www.pltw.org](http://www.pltw.org), ThinkQuest and Think.com (Oracle Foundation) [www.thinkquest.org](http://www.thinkquest.org), WestEd PBLNet [www.pblnet.org/](http://www.pblnet.org/).

**8. Mechanical Pedagogy:** (PW) this model basically draws, like mechanical Christianity, from the Newtonian view that God created a mechanical universe where causation is linear and sequential, where laws and rules and theories are prime and the describe the way the world works so that Gods mind is accessible through these abstract intensely cognitive theories. It was widely held by many philosophers of the late 1800's (the end of the Industrial Revolution) that human thought and behaviour were largely determined by natural laws similar to laws of motion Newton had discovered. And learning in this context needs to be thus organised in mechanical manner. Herein social justice and salvation could be had through mass consumption.

Since Aristotle thinkers have concluded that for the mass of the population work then is the vital theatre of self knowledge of late though self-alienation, commercialisation and mass consumption. Mass schooling along with a controlled workplace undertaking mass production is the most effective is the most way to foreclose the development of a child's imagination possible. This was to generate a modern living faith that would grant social development national prominence, maintain social stratification and replace the Christian one

that had died for them (the Carnegie's, Rockefellers, Fords and so forth of the world) Gatto (2006:107).

**9. Non-foundational Pedagogy:** Non-foundational pedagogy is one based on non-foundational knowledge. Hess (2005:97) may be defined as 'an alternative to this traditional, cognitive, foundational, idea. It assumes that knowledge is a community project, rather people in community construct knowledge by working together in groups, interdependently – heterotechnically. All knowledge is therefore the 'property' not of an individual person but rather of some community of rather the community that constructed it in the language spoken by the members of that community.

**10. Relationship Pedagogy viz. Relatio-pedagogy:** [See: Relatio Pedagogy in App H]. Here pedagogy is relationship based that is relatio rather than cognito or chiro. They are often set up originally under an religious or esoteric modus operandi such as a Christian Brothers protocol by Edmund Rice, or Waldorf education by Steiner, and so the pedagogy is based on relationship so its relatio (talk it out) not cognito (think it through) or chiro (work it out) . In this sense the methodology is really orthogonal to Artificer Learning. This is a good start – it means students will be valued as a human (still there will be little 'worthwhile' for him to do in the bigger picture etc. however it is a good start). Another good thing about relationship pedagogy is that they have kids learning and some (very limited) adult learning and sometimes mentoring. [see <http://www.ereflc.org.au/> ]

**11. Revolutionary Pedagogy:** Gatto (2006:56) Basically Socratic Pedagogy, also Freire's (1972) conscientisation, liberation theology. Volk Pedagogy has a lot in common with this type however volk also has the dimensions of 'sense common' and pedagogy of the mundane of by the mundane for the sublime.

**12. Scientific Pedagogy - techological:** [See: Scientific Pedagogy in Appendix H]. For instance (1) In the Montessori Method, Maria Montessori introduces a scientific approach to pedagogy. The Montessori schools which she established and developed are intended for children three to seven years of age. The children are allowed as much freedom as possible and are provided with 'didactic materials' which are various artefacts which they can use to educate themselves. They are supervised by a single directress whose primary task is to observe the children and direct their efforts by explaining to them how various didactic materials are used (it's very simple, but nothing is obvious to a young child). Another example (1) science applied to children's learning would be a Skinner box of whereby teh student/baby is treated as say a dog and learning is subsumed into training which is subsumed into conditioning. While (2) would be, for instance, a science discovery centre or discovery learning or experiential learning viz. Artificer learning. See Gatto (2006:55).

A sub-set of this pedagogy is what I call Technological Pedagogy which is for instance the technology schools (Vocational (Vocational Colleges)→Advanced (Colleges of Advanced Education and Institutes of Technology)→Higher Education (Universities)) and even TAFE's, Dubai Educational System and Singaporean education – technique is ok critical reflexive questioning of the (patriarchal) status quo is not – these represent applied science. Which is fine but often is where TAFE is concerned denominated in behavioural terms as discussed in various places in this eBook and series.

**13. Socratic Pedagogy:** The Socratic Method (or Method of Elenchus or Socratic Debate), named after the Classical Greek philosopher Socrates, is a form of inquiry and debate between individuals with opposing viewpoints based on asking and answering questions to stimulate rational thinking and to illuminate ideas. It is a dialectical method, often involving an oppositional discussion in which the defence of one point of view is pitted against the defence of another; one participant may lead another to contradict himself in some way, strengthening the inquirer's own point.

**14. Volk Pedagogy:** (PW) Artificer learning - outside formal structures – school of hard knocks – experiential learning etc.

**15. Ecogogy cp. Econogogy**– here in a somewhat simplified sense the key pedagogies mentioned here can be seen as fitting or nesting into a holistic holonistic ecological pedagogy such as permaculture and animal rights for instance. As such this is a valid nest for the Bush Mechanic and many so called Ecopedagogy approaches such as these include an important requirement for such skills.

This approach also has been called **ecopedagogy or ecogogy** and as a subset includes the Green Bushy – or GB. From my perspective I prefer the concept term of **Critical Ecological Pedagogical Praxis (CEPP)** as action is paralysed by post-modernism and sadly often by post-structuralism (possibly with the exception of Bourdieu (1998)), which in turn I see as a predictable and possibly inherently designed in effect of what I call **cognocentism or nooism: that is the power and ethics based valorisation of the cognitive over the actional**, which, is the whole basis for the emergence of this eBook and support series.

**CEPP includes:** innovative teaching and learning processes, development of student's empathy, responsibility, respect for 'the other', critical thinking, active citizenship and I would add praxis.

Generally ecogogies seek to respect and seek to include 'oppressed categories' such as women, poor, the unemployed and crucially life in general and in particular non human life such as animals (though not often plants and bacteria for instance). That is ecogogies seek to address the anthropocentric nature of humanity and our 'supporting' ontologies and epistems such 'supporting' is called speciesism. Pederson (2006:229).

Many Ecogogies use adult learning as well as seeking to green primary school etc – all commendable but not in the pedagogical league of Illich's deschooling. So far so good however what is the great risk is that ecogogies I have looked at run the risk of becoming green-washed pedagogy and few if any of the underlying pathologies of conventional pedagogy are even acknowledged let alone addressed. This is a term with much promise however for the reason that much more work needs to be done on pedagogy before introjecting and intervolving it in ecology.

**NB1: nooism** my preferred term is already populated by a form of right wing religion fundamentalism supportive of globalism, intergalactic capitalism and other bizarre phenomena.

**NB2: econogogies** would for instance be more attuned to developing local economic and/or broader economic systems (Community Economy Development) and hopefully may well be highly critical of the ethics and power relations embedded therein yet in all probability will possibly be a form of nooism.

**NB3:** CEPP has also been called **Humane Education (HE)** and **EarthKind Education (EKE)** yet in my research it would appear that HE is primarily related to animal rights and doesn't problematise power structures of the class room, in the classroom yes – of the classroom no. That is the issue of whether a classroom is necessary in the first place and the nature of compulsion to force people to attend the class room is not addressed, whereas compulsion within the class room is, just as other (non animal) forms of life and Gaia as a life form are not considered. In my view a limited yet valid first step however I suspect that the HE system will get hooked up on this. See <http://www.humaneeducation.org.au/> (accessed 04-2010).

**NB4:** On balance I would have to say that on balance, in my view and from my research and experience, Neohumanism is a conceptual platform far more relevant form of CEPP than HE.

### **16. Neohumanist Pedagogy**

Neohumanist Pedagogy (NHP) is a pedagogy that starts from an Eastern spiritual perspective of the integration of the mundane and the sublime, from the Individual to the Infinite, or I<sup>2</sup> as I see it. See Inayatullah, Bussey and Milojevic (2006) for a full dissertation of the various aspects of this Pedagogy and Jitendrananda and Wildman (2003) also refers. As can be seen from this eBook I draw heavily from this Pedagogy and see it has much to offer because at root it transcends the human and the animal and engages the whole planet as well as spiritual issues and phenomena.

**Issues that, in my view are not adequately incorporated in NHP include:** (1) challenge to the power structure OF the classroom, (2) need for an enhanced intergenerational focus viz. mentors etc., (3) overt need for praxis as in Exemplar Projects – though there is a commendable commitment to Social Service, (4) no articulation to a critique of how Status Quo Pedagogy viz. schools, colleges and Universities contribute to the Abu Gharib and Auschwitz syndromes (both wrt power over and racial vilification and othering of difference), (5) no deep secular commitment to governance viz. democracy etc. for classroom or school deliberation or parent involvement in school governance or establishing and changing curriculum priorities and (6) tends to see spirituality as locus mundi and praxis sufficient for a pedagogy (completely understandable if one comes at pedagogy from a spiritual perspective).

Other related pedagogies include the Hare Krishna and from a Western perspective Steiner approaches to pedagogy. (See Ch10: Esoteric Pedagogy models). This eBook series is, however about an exoteric pedagogy and so while the NHP is beyond the scope of this eBook many of the specifics thereof are directly relevant and have been draw on, and gratefully acknowledged, in this work.

### **17. Relationist Pedagogy**

As Turnbull (2006:56) indicates ontology is a cultural preference and in this regard he advocates a 'relationist' ontology where words such as *interface*, *cohesion*, *concept integration*, *network*, *netweave*, then connections laterally and vertically come into play. And in this regard Turnbull argues that teaching is more about phronesis that is a practical wisdom than providing them with knowledge itself or technical proficiency. In my work I seek to extend this to practical wisdom that leads to acting ahead wisely – phronesis.

Turnbull challenges the Baconian metaphor as Nature as Mechanism and I extend this to the economic rationalist's metaphor of Society as Mechanism with social policy settings and policy adjustments as pulling the social policy levers etc. Further I accept Foucault's (1989:133) point that tools, conceived abstractly, are tools of power and have an ontology or

as he says ‘regimes of truth’ embedded in them and their design. The aim of these eBooks is to ‘make *the future* open to alternative myths and metaphor, rather than to force nature open through technical power based on one myth of seizing and transforming nature to suit human needs’. Turnbull (2006:54).

This sort of Artificer/Relational pedagogy is based ‘not on scientific assumptions but on the assumption that we do not *intimately* know anything of *value* unless we are already part of making or using it – or are complicit in being made by it – and can review what has been accomplished so far. This sort of value cannot be understood fully either as intrinsic value, or as instrumental value, for there is no end in sight. It is part of constituting the future, of preparing for it in thought, and thus might be termed *future-constitutive* value’. Turnbull (2006:57). This is a pedagogy I call ‘artificering’, or ‘creative’, or ‘critical futures praxis’, or ‘futuring’ as argued in Table B of my extended paper Wildman and Inayatullah (1996:Table B). Here I identify seven pedagogies and explore them in the taxonomy provided. [Techne/Bush Mechanic (1), Scientia/Scientific (2), Praxis (3), Gnosis (4), Relatio/Relational (5) Practike/Practical/Artificer (6), Akademos/Academic (7)]. With Turnbull (2006:59).

I suggest that even if those alternatives such as ‘relatio’ or ‘pracademic’ or ‘futuring’ remain as sub-dominant discourses within status quo discourse, their mere existence can tell us more about the structure of reality than any putatively scientific claim ever could. Consequently relationism as a basis for an eclectic pedagogy is one I strongly endorse in this work.

### **18. Personal Development Pedagogies (PDP)**

There are many PD courses which include consciousness raising, transformative learning, spiritual ascendancy, chakras, kundlini rising many of these interests remain individually focused. Whereas things like men’s projects, women’s groups, tacit knowledge and so forth tend to fold back into pedagogy. So with the possible exception of feminism, liberation theology, conscientisation PDP can seldom represent a coherent alternative pedagogy. Further feminism, postmodernism and Marxism for instance and liberation theology represent the application of critical theory to modernity and once again are largely defined by the status quo in their resistance thereto. None as such of these are project focused with the project as the axis mundi or locus of authenticity of the learning process.

I have sought elsewhere in this series to explicate and compare various types of pedagogy and it is acknowledged that **Artificer Learning Pedagogy is not a PD pedagogy nor is it a spiritual enlightenment process and nor does it pretend to be.**

In this eBook I argue that an alternative pedagogy needs a practical way of answering the question ‘*how then do we live together today to demonstrate that a better world is possible tomorrow for our children?*’ Artificer Learning is ‘*a person in context of project and community embedded in an action learning system*’ which, maintains that a viable dynamic and synergistic answer to this question is possible through Artificer Learning. Many of these individual pedagogies’ are more workshops that don’t have in mind the logic base of the Artificer that is the big picture of exactly how this learning system would articulate to a better world. So on this basis I call them pedagogies not a pedagogy and in a strict sense of this eBook they are not pedagogies per se but self-learning workshops.

Nevertheless Artificer learning can incorporate elements of these PD courses which can include:

1. From 'vicious class rooms' of dependency on pedagogy to 'virtuous learning circles' of agency
2. Rebalancing pedagogy power imbalances
3. Unfreezing our freeze frame on the past and allowing our future potentials to emerge i.e. from ancestors to forescestors
4. From surfacing our tacit patterns from the past and looking to reshape them for
5. Moving from incremental change through pattern shift to reify transformation to reify our potential
6. From others listening to us to us listening to others and for change and potential
7. From breakdowns to breakthroughs and breakaways and embodying this in a lifestyle that walks the talk individually and collectively
8. From 'thinking it through' to 'working it out'
9. 'From Me first and last' i.e. learning as bums on seats to 'from Me to We to Me'
10. Shifting gear from head knowledge through tooled knowledge to hand knowledge i.e. from cogno-pedagogy to chiro-pedagogy

### ***19. Emergent Conventional Pedagogy (ECP)***

It is the contention of this series that the critique I have developed in relation to textuality are disturbingly even more relevant to hyper-textuality and beyond to meta-textuality and ultimately trans-textuality. In this final morph/'infolution' we will see I propose within the process of the singularity thus by 2030. Initially we see it as the web based re-grounding of curricula, where the web clinic replaces home economics or wood-shop or metal-shop. This is where virtuality or endemic '**virtuality**' is replacing critical literacy in its form of '**illusionality**'. The web versions of global media seem more today oriented to disparateness than connectedness and setting up the third world for failure and to seek actions to redress this.

Critical literacy **has to include**, I argue, 'creativity' that is a physiospheric dimension in engaging and embodying the world in order to critique and thus understand it. Arenas herein include conscientisation as well as skills and competencies in the arenas of life, enterprise, self-sufficiency, practicality, conviviality and virtuality and so forth all of which are, to varying extents, embodied in Bush Mechanic skills. Virtuality is largely a one way system of multimedia consumption and where authorship occurs it is largely a form of blog based 'niche extremism'.

### ***Counterpointing ECP with the Exemplar Project Logic Base as Critical Literacy***

In acknowledgement of this approach I do propose that: (1) We use the logic base of the bushy to help us navigate this emergent virtuality, (2) CL is used here broadly in line with Fiere's conscientisation - see Freire (1972), Illich (2005), and (3) the Exemplar Project and its associated apologetics, design considerations and performance review are practical, to my mind **utterly foundational**, demonstrations of important **aspects of such 'conscientised critical literacy'**. Clearly textual and to a point virtual competence are also crucial foundational aspects of such literacy.

**Critical literacy** then may be seen as an instructional approach that advocates the adoption of critical perspectives toward text. Critical literacy encourages readers to actively analyse texts and it offers strategies for uncovering underlying messages. There are several different theoretical perspectives on critical literacy that have produced different pedagogical approaches to teaching and learning. All of these approaches share the basic premise that literacy requires the literate consumers of text to adopt a critical and questioning approach. According to proponents of critical literacy, it is not simply a means of attaining literacy in the sense of improving the ability to decode words, syntax, etc. In fact, the ability to read words on paper is not necessarily required in order to engage in a critical discussion of ‘texts,’ which can include television, movies, web pages, music, art and other means of expression. The important thing is being able to have a discussion with others about the different meanings a text might have and teaching the potentially critically-literate learner how to think flexibly about it. Critical literacy then has become a popular approach to teaching English to students in some English speaking-countries, including Canada, Australia, New Zealand, and the UK. At the heart of this approach to teaching is the belief that while literacy enables students to make meaning from texts, critical literacy will empower them to understand how texts are trying to influence and change them as members of society. [ [http://en.wikipedia.org/wiki/Critical\\_literacy](http://en.wikipedia.org/wiki/Critical_literacy) ]

## ***20. Value of non-formal Androgogy***

Because of its infinitely greater flexibility non-formal education characterised by praxis and blending theory and practice, thinking and doing, manual and intellectual work, it is more readily geared towards engendering critical and paraxial literacy, much more so that the university is to produce such a Freireian ‘organic or new intellectual’. See Mayo (2004:64-65). Further Mayo uses the term ‘**organic intellectual**’ in the Gramscian sense of the agent who helps shape the culture basis for consent to a way of life diametrically opposed to the that experienced during the process of colonisation’.

Indeed Mayo (2004:64) quotes Freire echoing Gramsci, in favour of non-formal education – peoples or volk education - as being convinced that at the end of the day ‘it is easier to create a new type of peoples intellectual – forged in the unity between practice and theory manual and intellectual work - than it is to re-educate an elitist intellectual’.

Consequently pedagogical activity is conceived not in a vacuum, where economic and power relations are ‘normalised’ or even ‘naturalised’ and so thus is Status Quo Pedagogy, but rather in the context of an analysis of power and its structural manifestation. A key structural manifestation is the political and thence pedagogical separation of practical and theoretical, or doing and thinking, in education. This is I argue a classical and ultimately utterly effective way of advancing modernity through emasculating the volk.

**We need pedagogies to resist the hegemonic standard status-quo Western pedagogical discourse of technical rationality, marketplace accountability and global competitiveness.** May I humbly and genuinely submit that Artificer Learning viz. Praxial Pedagogy is one such Secular Pedagogy.

Indeed such pedagogy luminaries Mao, Freire, Gramsci, Nyerere, Ghandi, Marx and Mayo (2004:63) all saw the utter cruciality of linking blending and integrating thinking and doing, praxis and blending theory and practice, thinking and doing, manual and intellectual work.

## ***21. Alternative/Bushy Chiro-Pedagogy (ABC-P)***

By this I do not mean doing conventional pedagogy in interesting and novel ways. Such as enterprise learning, relationship learning, discovery learning etc etc. Home Schooling (HS) is

generally in this category however there are small aspects of HS that do overlap somewhat with Alternative Chiro-Pedagogy (AC-P). There are many of these initiatives which simply get to the same destination but slightly different routes.

### The Who's Who of Alternative Chiro-Pedagogy (ACP)

**These days basically no one in the west is praxising AC-P** – we can have alternative food, alternative communities, alternative health even alternative economics but no alternative pedagogy. Indeed outside a handful of researchers such as Illich (1970), Holt (1964, 1967, 1976), Freire (1972), Goodman (1962), Mochelle (2001: Ch6), Abbott and MacTaggart (2010), and myself (2010) - especially in this eBook of this Bush Mechanic series) no researchers or organisations are talking and seeking to delineate and practice **Alternative Chiro-Pedagogy (AC-P)**. Illich is sadly missed. NB: these anti-schooling classics are all over 30years old. Again Illich you are deeply and sadly missed. There is no one of his calibre left – **no one no one no one**.

### The What's What of Alternative Chiro-Pedagogy (ACP)

The four elephants in the Modernity ante-room are, in my view, (1) Collective Deliberation, (2) Nation State, (3) Property Rights and (4) Pedagogy. This to me is a part of the vast lack of interest in Meta-Strategy which in no small part is about finding the elephants in the room and seeing if one of them is about to tread on you. M~S represents the ground from which strategy is set and is interested in things such as (1) the ground from which strategy is set, (2) the ways that the folks relate who are setting strategy – rules of engagement for the strategy group, (3) the elephants in the room in which strategy is set, (4) future organisational environment a generation+ out, (5) organisational intentionality, (6) organisational directionality, (7) joined-up responses in fragmenting and discrete operational and policy environments.

[NB: **Pedagogy** can be dissected into five key areas: (1) epistem, (2) intent, (3) context, (4) admin and (5) costs].

### **22. The Three Brain-Grain Chiro-Pedagogical Bricoleur (3BGCPB)**

(1) **Micro** – the Grain of our Brain – psychological - social anthropology and psychology show us that the child's brain is only 40% formed at birth and that the majority of cognitive development occurs through 'hand mediated experience' in the outside world in the first five years of life. Thus experiential learning or constructivism is the crucial demarker of a learning process that goes with the Grain of the Brain. Here, I would argue, we see the fingerprints of a Bricoleur writ large as pedagogy.

(2) **Meso** – the Grain of Evolution – biological - here this view is extended here as experiential learning has been chiro based as the locus of learning so to speak for at least 1.4million years for our species and its forbears. The study of biology and thus evolution makes it clear that living organisms are ingenious contraptions, artifices cobbled together from odds and ends as circumstances dictate i.e. a posteriori. Although many bits operate beautifully a lot of the 'design' has a make do **Bricoleur** – use what is at hand – **air about it**. Davies (2006:222 – adapted PW). Is this a case of biophilia (a world tuned for life)?

Furthermore we can see the ‘grain of the evolutionary brain’ in action over millions of years prior to the advent of homo sapiens and even during the existence of our species when there were several other upright apes such as Neanderthals etc. **This Bush Mechanic capability is not something unique to humans some other apes**, some elephants, dolphins, New Caledonian ravens etc. have this capability and make tools (in effect just as some other animals have consciousness). It is, I argue strongly, part of Gaia’s evolutionary brain grain. What happens is that having a hand with a thumb opposable to all fingers helps hold things – crucial in this tool related praxis. As argued elsewhere in both eBooks in this series, tool use predate humans by up to a million years and tool use was widely spread among hominid species of which there were several on earth even up to 20000 years ago or less. As indicated the Bush Mechanic approach goes with the grain of this evolutionary brain gain.

(3) Macro – the Grain of the Cosmos – cosmological - Theoretical Physics now maintains that the laws of physics (Newtonian law of Gravity and Einstein’s law of Energy transformation  $e=mc^2$ ), long thought to be immutable are not so. And not only that they are not necessarily accurate and further have no existence in abstract Platonic ideational space separate to their fuzzy operations in the actual cosmos. A short time after the big bang the 20 or so CCV’s (Crucial Cosmic Variables, now Constants including, gravity, the electron magnetic force and the strong and weak atomic forces) varied significantly and finally ‘congealed’ into their present value on which the so called ‘immutable’ laws of physics are based. Their value which varies even in our galaxy within a certain range **is a necessary pre-requisite for life to form, a cosmophilia** (a cosmos tuned for life). These values are likely to vary considerably in other ‘pocket’ universes within the cosmos according to Davies (2006:176, 267). So in this sense the galaxy is a contraption ingeniously cobbled together from the bits available, again a **Bricoleur air about it**.

**NB: None** of these three need necessarily posit a Theistic or even Deistic ‘G’od or ‘g’od or supernatural being rather they have been listed here to show how deeply ‘bottom up’ even ‘experiential’ even ‘historical’ ourselves, or planet and our cosmos are.

#### Dimensions of Pedagogy wrt Standard Pedagogy

For instance in terms of **Standard Pedagogy (SP)** I submit the expansion of these points would include the following dimensions: **(1) epistem** – continuation of the Cartesian ‘I think therefore I am’, either or, science and abstract thinking valorisation derived from Plato’s academy that separates thinking (‘higher’ ed) and doing (‘vocational’ ed); **(2) intent** – as in the Industrial Revolution to produce factory workers/clerks; **(3) context** – to ‘teach expost knowledge’ through top down curriculum to illuminate the past with no focus on the future or future learning skills. Radically different than 250years ago now a post industrial failing society with the trinity of ecological crisis, poverty crisis and population crisis) – which aren’t part of the SP; **(4) politico-admin structure** of the school systems that is authority of the teacher, non participation in curriculum priorities by students or family, compulsory nature of attendance, authority of the headmaster as representative of the State; **(5) costs** – public schooling from

taxpayers yet they have no say in curricula or hiring of teachers or policies at the school, in private schools around 80% from fees).

### Critiques of ABC-P

Generally these critiques may be located within the broad rubric of 'there not SP. So defining characteristics of AC-P are themselves different to SP and since SP is the totalising force in Pedagogy in Modernity then that alone is sufficient critique. These critiques include:

- (1) need for the **student** to have **schemas** prior to action,
- (2) need for the **student not to waste time on actioning his mistakes** early in the learning process,
- (3) recognition of the **importance of worked examples** before a student starts to develop his schemas and or actions
- (4) **assessment** – is 'subjective' in that it is not assessment by text i.e. written assignments, however over the past two centuries if the amount of effort going into assessment was say scored at 100 then I posit that the amount of effort devoted to refining text based assessments would be around 99. So here in lies the answer change the focus of pedagogy and the rest follows
- (5) **overly resource intensiveness**, in quality *and* quantity, through the focus on the individual student and in my view most significant
- (6) **AC-P gives choice** before the student is mature enough to choice. Genuine choice, which to be 'genuine' needs must include SP, gives customer rights and requires a commitment to service. At the moment the SP masquerades as equalitarian etc. yet delivers the reverse all the time broking no input into curriculum priorities by other than the educational elite. Here one I would argue is somewhat compelled to recognise, in an intelligent context, the importance of deep involvement of parents and other mechanisms such as individual vouchers.
- (7) **AC-P does not equip the student for 'dog-eat-dog' competitive world.** This argument is close to Social Darwinism – agreed rather I argue it equips a student for a copetitive world
- (8) **Recognition of severe gaps in ones Lived Life** e.g. torture or domestic violence etc. As Dewey argued, the school environment 'must see to it that each individual gets an opportunity to escape from the limits of the social/economic/religious/ethnic/racial group in which he was born'. Dewey (1916:20).

The first seven fit into the above point of not being 'wrong' rather being 'different' than the status quo so to speak. In this regard they are correct and in fact, I would argue, a design pre-requisite for change.

The last and those like it really do warrant acknowledgement and addressing within the scaffolding/mentoring/guiding roles for the learning facilitator. Further it is also acknowledged that some authors, e.g. Mochelle (2001) take a view that Dewey's perspective and those like it trump or outweigh by far any advantage from the AC-Pas espoused in this series. Such a view may well be seen as a universalist even Kantian critique of the local or provincial as it could be argued is espoused in this series. My own ontological view is that that the former is a deeply

valid critique that totalises variation in our species and provides a path that can be appropriated by the NeoCons to destroy society and replace it with econometrics.

On this basis I submit that in a strong secular Western culture such concerns could arguably apply to up to 20% of the population. Bearing this in mind I argue the last point is addressable within the context of AC-P on the following bases: (1) choice is available in that the AC-P does not become a totalising pedagogy as with SP that is AC-P is the new SP, (2) it follows the grain of the brain/evolution/and the cosmos, (3) the local or universal is ameliorated through glocality – local and global simultaneously, (4) mentoring is built in, (5) the pedagogy is secular, and (6) a collective/social ethical net is discursively developed even to the point reflecting the nations/organisations/ communities constitution, implemented inc. accountability, incorporating a duty of care statement towards student detainees. Crucially if compulsion is to be retained it must be a publically contestable accountability basis whereby:

If arbitrary detention is perforce admissible, if youngsters are to be constitutionally compelled to attend to certain learning priorities, then by the same token, educators should be constitutionally compelled, and qualified with the mandatory competencies, to ethically justify these priorities to their detainees, at the earliest possible age. But they should be required to do so in a way that invites challenge that treats the youngsters with no less respect than accorded to adults, as having the capacity to critically consider what is in their interests. Mochelle (2001:215).

**So in summary my point is not so much about compulsion rather it is about the non-contestable non-flexible, non-participative, non-accountable, non-democratic, no alternatives doctrinaire form of compulsion that we now have.** Particularly in regard to children forcibly compelled to become school detainees, and their parents who are also compelled on threat of prison or withdrawal of pensions and benefits forced to force their children to become detainees.

### ***23. Post Apocalypse Pedagogy - PAPedagogy (Education 2050)***

**Apocalypse** means ‘revelation’ in ancient Greek, meaning ‘uncovering what has been hidden’, in other words ‘uncovering the previously covered truth’ i.e. the revelation of re-new-ed truth, so as to bring the hidden or covered into consciousness. In these sections of the eBook I seek to explore what may be termed ‘a new kind of **secular pedagogical eschatology**’. An eschatology that continues the present descent into the enlightenment inferno of the Status Quo Pedagogy or one that can allow individuals in community to flourish sustainably.

**I submit we have but a decade to choose.**

This process operates in four phases: revelation, judgment, destruction, and a new birth. Today many of the ‘presenting problems’ we see in the environment and crime and poverty are, for me, represent stages one and two and are in a sense ‘superficial’ because they are consequences of much deeper aspects of our Western civilization and point to much deeper outcomes for said culture and indeed thereby the Globe. This does not mean they are unimportant rather that their contours are such because they sit on a deeper foundation or even say reef offshore that shapes the waves we see as events that splash us on the beach.

These deeper aspects are so deep as to touch into what German-speaking societies mean when they speak of ‘culture’ as distinct from ‘civilization.’ The German tradition recognizes a

difference between the artificial constructs of city living ('civilization' deriving from the Latin 'civitas', 'city' literally the definition of 'civilisation') and the more organic growth of collective ways of living. I would argue that the deepest meaning of culture is 'G'od or 'E'ssence or 'Sacred Spiral' of spirit and soul. So effect of the archetype of the apocalypse is 'g'od' and bringing the West into a transformed relationship with this Essence – I would suggest a whole god within which we locate as indigenous.

The archetype of the apocalypse is, I suggest, asking us to address themes that have evolved organically over millennia—paradigms, even chreodes even morphogenic fields in our Zeitgeist, which are much deeper than our civilisation which in turn is much deeper than our ways of running our political and economic systems which in turn is much deeper than our technological gadgets. **Chreode**, is a neologistic portmanteau term coined by 20th century biologist Conrad Hal Waddington that combines the Greek word for 'determined' or 'necessary' and the word for 'pathway.' The term was used along with **homeorhesis, which describes a system that returns to a steady dynamic trajectory** in contrast to **homeostasis which describes a system which returns to a steady state**. To deal with such deep themes and systems we must get to unconscious levels, to address and change things so basic that they seem 'normal' or inevitable. **Homeorhesis and Chreode** then, both derived from the Greek, means patterns of dynamic perturbation gained by traversing a 'terrain'.

So in this context an optimistic attitude of hope midst the death and despair can possibly transform the catastrophe into an apocalypse i.e. a mass enlightenment for those who can survive the purge and make the, final, grade of neg-entropy, creativity and/or universal love none of us is yet fit to survive this, metamorphysical (metamorphosis  $\infty$  philosophy) change, but many of us will soon be experiencing it firsthand.

**RIP Pax Americana:** Here I suggest we can in the longer run till mid this century at least see this as Post Pax Americana. In fact Smith (2006:66) sees many of today's trouble spots as a case of Pax Americana V's global citizens wherever you live. To my mind America no longer has the social innovation, technological muscle, physical economy grunt or moral suasion to carry forward any sort of coherent internal or external economic strategy other than do 'dis the dissidents so to speak.

What impact can this have on pedagogy I hear you ask? Well there is a possibility that globalisation el ar neo con capitalism writ large will go the way of the American dinosaur. Although as Korten (1995) says corporations now rule the world the moral suasion behind them is to my mind Pax Americana and as the latter change so will the former. Indeed in some ways one can see an analogy to the galactic super nova as it forms the star grows greatly in brightness yet as it ejects most of its mass (physical economy).

**Fusion of Horizons:** Elsewhere in this series I have explicated the dichotomous nature of our Zeitgeist that is Cartesian 'either-or' thinking. Rather here I seek to present what may be seen as 'fusing of horizons' a hermeneutical process whereby neither of the mutually exclusives in either side of the 'either x or y' are acceptable and we search for a horizon which integrates the two i.e. 'x and y', for instance a fusion of horizons between 'thinking or doing' to 'thinking and doing'. Gadamer (1992). This is not to conflate the two but to find if one will a common point of interface even integration. NB: Fusion of Horizons is only one,

albeit post structuralist one of addressing these dualities so dominant in our western culture. Others include: mentoring, apprenticeship, artificering, chiro-pedagogy, indigenous learning systems and so forth. Each of these has its own value and is at least implicated in this eBook.

**Freebasing Ed:** Freebase here means open source Wiki type data base. And also ‘stand alone’ in terms of the DIY drug culture referring to the ‘pure basic uncut form with adulterations removed’ in this case of education. It can be conceived as a part of the ‘creative global commons’ movement. It symbolises the need, in my view to freebase another form of education to get us of the consumption pedagogy drug. I propose that the political economy of PW will look like the Soviet Russia in the 5 years subsequent to its collapse.

**Learning for, and in, a Post-Apocalyptic World or Can AC-P Help Prevent Catastrophe?** Such Learning will of necessity be life based, based on necessities of the lived life, Kunstler (2008) illustrates this. In the decade of my research for this series in Australia at least, less and less interest has been shown in AC-P’s in general and Artificer Learning in particular yet more and more on the web, blogs and so forth. The politicians just aren’t listening to us – this is just hastening the crash. I submit that Artificer Learning is a viable AC-P for a Post-Singularity, Post Apocalypse scenario that I submit our grandchildren will face.

**A Decalogue (10) of Structural Failures of Status Quo Pedagogy (SQP):** AC-P seeks to ask and in part answer the question: How do we rapidly establish systems of collective learning that can win out over catastrophe? And if not how do we establish now system of leaning that would be appo pos to our post apocalyptic grand children?

In AC-P we seek to address these questions by identifying the crucial structural failures of SQP and then articulating a practical AC-P.

**The first** and most fundamentally crucial failure in the structure of SP is in effect a nested cluster of failures (1) that of democratic failure of overall issue of the justification of compulsion (since the 1850’s) that is compulsory school participation, (2) attendance at the school and (3) compulsory participation in a curriculum in which one has no say. See: Abbott and MacTaggart (2010), Freire (1972), Goodman (1962), Holt (1964), (1967) and (1976), Illich (1970) and (1977), Milojevic (2008), Mochelle (2001: Ch6).

Tragically, yet expectedly, so little if anything has been achieved over this span, or even spam, of 50years and yet still many of these authors while alive remain within the Monastery/Mone(s)tary so to speak as happened a generation ago in religious orders and mainstream denominations. A dilemma serious non status quo theologians have had to face is that at some time the reach a point of no return, whereby they, to retain their authenticity and to walk their talk and to have credibility with their colleagues and ‘readers’, have to leave the clerical robes behind. This is something deep that I also have had to address. The academy is now at that point.

Nested within this are the **second** viz. economic/labour market failure whereby the back door of the school no longer opens onto the front door of the factory or bank or public service etc., i.e. the nation’s economic base (1980’s+). Over the past generation Australia has exported its

economic base to the developing nations and the school system has not changed. Wildman (2010c).

And now we face the **third** failure (2000+) through the emergence communications revolution with the conjoint impacts of the World Wide Web, Instant Messaging, Intelligent Computers and again the school system remains stuck in the mindset of the Industrial Revolution.

**Fourth** is the ethical dilemma of the link between Abu Gharib and Harvard that is between Pedagogy-Higher Education, War-Torture. This like The Enlightenment and Auschwitz in the Second World War represents in my mind a catastrophic and as yet too oft repeated and unredeemed, failure of the educato-ethical systems of many Western modern Nation States. Hedges (2009), Orr (1999).

**Fifth** is the disconnect between school its creator and sustainer the Nation State and the Planet that is the need to like education to the big picture the planet in peril as President Obama said in his inaugural address.

**Sixth** is the continuing separation of thinking and doing, between Higher Ed and Voc Ed with the valorisation of the former.

**Seventh** is Pedagogy's place in the dumbing down of the West, Gatto (1992), (2006), esp. English speaking peoples through the trading of critical literacy, and I argue for a further step therein to praxeological critical literacy whose axis mundi is the exemplar project, for high priced vocational training centres. Thus we see SQP's modus operandi as 'brutal utilitarianism, instrumental instruction, behaviouristic conditioning and segmented silo application for vocational readinesses'. See Hedges (2009:108). Leading us to the;

**Eighth** structural failure of SQP – the 'othering' and destruction of indigenous ways of learning esp. non textual ones. Ong (1982).

**Ninth** SQP almost exclusively prepares students for urban existence utterly dependent on power over authority systems and fossil fuel and global trade. Orr (1999:166). Furthermore Orr argues that from climate change to biological and cultural diversity and Abu Gharib all this is undertaken not by ignorant people, rather it is largely the results of work by people with tertiary qualifications with MBA's and PhD's etc. As children and adults we are taught how to compete and fight and other but not how to life in a truly just and sustainable society.

**Tenth** – Pedagogy as weapon of monopoly for bourgeois/Status Quo sociodicy even if I may posit yet another neologism pedagogicy. Bourdieu and Passeron (1990:210) and Matheson (2008:272)

Practical Chiro-Pedagogical Attributes inc. Actual Subject Areas: In summary these Practical Points emerge from this research that can to a significant extent redress these structural failures

of Standard Pedagogy: (1) **World CIVIDA Volunteers**, (2) **Practical ethics** course inc. operations of the school, (3) learning as mentoring – **school as apprenticeship**; (4) **exemplar projects** that link to the overall four aspects of Bushy Mechanic Lore and thereby demonstrate the emergent **chiro-focused pedagogy** of dexterity, skill, interface; help others; link to the planet's needs and help the student detainees, colleagues and family participate and learn; (5) **720degree learning** that is lifelong and life deep learning; (6) **Kids and Adults Learning** vertical integration rather than separation of ages<sup>x1</sup>; (7) **School Governance** inc. rights and responsibilities of student detainees and their detainers; (8) **Attenuation of compulsory attendance and testing** with several options; (9) **Parent and Community determination of Curriculum Priorities**; (10) **outcome planning** rather than input monitoring or outcome management; (10) School Infrastructure to be part of its community; (11) **Outcomes** that are demonstrably fractal, integral, holonic, synthesised and joined up/interfaced; (12) **Education for test scores to be replaced** by learning for a Quality of Planetary Glocal Life (QPGL) rather than the Standard of Local Individual Consumption Living (SLICL); (13) Teaching is derivative from ones view/theory of learning so each pedagogy – how children learn is associated with a particular form of teaching to facilitate that learning. Consequently **Quality Teaching** is not about the test scores but Personal Experiences of individual student detainees as they seek out their potentials; (14) **Learning Processes** that go with, not against, the '**grain-of-the-brain/evolution/cosmos**' whereby the brain may be seen a '**complex proactive adaptive system**'.

(15) **Potential AC-P subject areas** could include: (1) democratic discourse, (2) participative governance, (3) (how to learn) pedagogy ~ types conventional/action/artifice/experiential/discovery learning etc., (4) chiro-dexterity, (5) creativity, craftivity, imagination, innovation and 'D'esign, (6) artificering inc. exemplar project and, the four stations of the Bricoleur, (7) the three grains (brain, evolution and cosmos), (8) glocal interactivity, (9) interface ethics inc. cohesion/concept integration ethics (this will prove challenging as there is no global ethics (network or interface) other than 'C'apitalism and the UN is simply a

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<sup>x1</sup> Kids and Adults Learning family company [www.kal.net.au/](http://www.kal.net.au/) uses the concept of the Vertical to include:

1. **Segmented multi age primary schooling:** is used widely and indeed was the main system in the UK from the 1960's to the 1990's e.g. Kindergarten to year 3 in one group - there could be three of these segments between kindy and the end of primary school. These are considered to be 'developmentally appropriate' and 'child centred' as they allow for different starting points for children and differing initial abilities. 191-192, 53. In France these segments are known as cycles. For example one teacher Primary Schools for instance – often in rural areas and especially in developing countries.
2. **Mentoring:** applying the indigenous eldership concept in a sense parallel to apprenticeship – blending expertise and wisdom with a clear articulation of today's issues/lessons/projects/homework to the big picture/global problematic
3. **Bottom up vertical integration:** rather than have conventional discipline categories descent from Academia above into pedagogy below viz. English, maths, science, history one can build play into more extensive projects which incorporate all these categories. NB: projects already include the horizontal gaze
4. **Consciousness:** for depth of understanding e.g. Life Deep Learning cp. the exterior gaze for disciplines and skill sets etc. Noosphere - thinking
5. **Interior gaze:** for reflexiveness
6. **Intentionality:** reach, proactivity, Intension cp. Extension, Physiosphere – doing
7. **3D Integration of thinking and doing**

See also Alexander (2001: 53, 191-102).

sometimes effective gaggle of Nation States), (10) global bushy stewardship and civic integrity development service, (11) post-apocalypse economics, (12) free-base ed., (13) futures; (14) Contingent yet Life Deep Living inc. dues ex Machina. **Future subjects** would include: the singularity, Rights of: Robots, Plants, Animals and Humans; AL Interface, post apocalypse learning, homeorhesis cp. homeostasis.

### (16) Practical Critical Reflexive Constructivism (PCRC)-

<http://www.thirteen.org/edonline/concept2class/constructivism/index.html> (also called Immersion Learning, Discovery Learning, Action Learning, and in this eBook Artificer Learning which are mentored/guided/scaffolded). Clearly the debate between behaviourism (argues that humans absorb knowledge through collective behavioural conditioning without recourse to individual reflection or experiences) and constructivism (argues that humans generate knowledge and meaning from their individual experiences) as key epistemes underpinning practiced pedagogy of present day school systems, will continue for me and in this series I favour its resolution in 80% constructivism. We need to acknowledge the tragic distortions of behaviourism over the past several decades in obsessive testing to nation standards irrespective of students, communities and planetary abilities, interests and potentials cp. completely unguided discovery for instance where the student could place themselves in some jeopardy.

I do however strongly argue that a decade of over-compensation is required and the ball now 80% behaviourist esp. in the Voc Ed arena needs to swing to 80% constructivist (PCRC) as per these above points.<sup>xli</sup> The above points however point to a 'constructivism II' perspective or 'constructivism+' pedagogy that moves beyond these debates and beyond constructivism that engage the other 14 points as well.

**Regarding:** (2) Practical ethics course and (15) ethical net see also: **Earth Charter** – Commission for Global Governance (1995), **Brundtland Report** – World Commission on Environment (1987), **UN Declaration of Human Rights** (1948), the **UN Declaration on Responsibilities** (1997) all are host positive towards the artificer principle.

In this context, to my mind, the constructivist view may be said to involve four key principles:

1. Knowledge is actively constructed by the learner, not passively received from the objective environment,
2. Said knowledge maybe directly apperceived and developed by the learner without the mediation of a 'teacher',
3. Coming to know is a process of adaptation based on and constantly modified by a learner's **experience of the world** via. bildung<sup>xlii</sup> and aletheia<sup>xliii</sup> are crucial elements of constructivist

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<sup>xli</sup> **PCRC:** Critical issues with constructivism is that, as a philosophy, it sits between structuralism (science is 'T' rue) and post structuralism (science is interpretative) and some would argue seeks to have it both ways. I have discussed in overview the strengths and weaknesses of this approach in

<sup>xlii</sup> Gadamer's **bildung** not only implies the dimension of teaching but also that of **learning (sich bilden), not only knowledge, skills and behaviours, but also values, ethos, personality, authenticity and humanity** – a holarchic nest of meaning that includes even spirituality and the ethos of the total formal educational system e.g. the term *Bildungsroman* denotes a novel of all-around self-development. See Gadamer (1992) cp. Slavic **Vospitanie** self formation through the informal sector so to speak. *Bildungsroman* has also been used for all round education of the self cp for instance to *entwicklungsroman* is a story of general growth rather than self-culture, an *erziehungsroman* focuses on training and formal education, and a *künstlerroman* is about the development of an artist and shows a growth of the self. Here Bildungssystem represents 'P'edagogy that is the entire spectrum of institutions concerned with teaching and learning in a Nation e.g. Germany or Australia. See also <http://www.eaea.org/index.php?k=15098>.

\* **Bildungsbereich** (sector of education): this means either the educational sector as dissociated from other Bereiche of the society (for example politics, economy); or it refers to a particular segment of the Bildungsbereich itself, for example schools, higher education, vocational training or adult education;

learning and in this regard I argue that Artificer Learning can be seen an expression of same.

4. Constructivism does not discover, or conceive, of a totally independent, pre-existing world outside the mind of the knower and in this sense it is hermeneutic

**Please note:** detailed discussion of these points is beyond the scope of this eBook however it is hoped that subject to further interest being expressed in the overall concept that further work can be undertaken in fleshing out these points.

**School as Detention and Retention in the Status Quo:** Compulsory attendance is a subset of the compulsory nature of Pedagogy which has become a fixed aspect of modernity. It is a form of detention for which the author is aware of no democratic justification. Please note:

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\* **Bildungsroman** – broadly analogous to vospitanie (Russian) – all round self development inc. character, morality, citizenship and skills (in Russia and Germany this development is supposedly the aim of pedagogy);

\* **Bildungssystem** (education system): This refers to the entire spectrum of institutions concerned with teaching and learning in Germany;

\* **Bildungsverhalten** (educational behaviour): Here as with other compounds such as Bildungsstatistik (statistics on education), Bildungsbeteiligung (participation in education) etc., the compound defines and indicates a particular feature, in this case primarily participation and educational careers of people.

\* **Erwachsenenbildung** (Adult Education): The addition of Erwachsenen- confines the term Bildung to the teaching and learning of a particular group of the population. Similarly the compounds with Jugend- (youth), Alten- (adults), Frauen- (women) etc.

\* **Erziehungsroman** – the formal system of education and training.

\* **Kulturelle(Erwachsenen)Bildung** (cultural adult education): The adjective defines more precisely the content area concerned with teaching and learning activities.

\* **Reformpädagogik** – reformed alternative pedagogy particularly those aimed at the development of human potential. Examples include: [see also Marsh, Craven, McInerney. (2008)]

In *Montessori's pedagogy (Italian 1870-1952)*, the teacher acts more or less in the background and becomes a careful observer and individual counsellor of the students, providing help to optimise their knowledge acquisition.

The principles of autonomy, self-action and self-control which encourage students to assess their learning progress are of particular importance.

*Freinet's pedagogy (French 1896-1966)* places a strong emphasis on self-assessment. Students should learn to define their own projects, to assess their learning progress and whether they have reached their goals in these projects. Tools for formative assessment in this sense are student week plans, diaries and working materials that allow students to assess and correct their own work.

*Steiner's work led to the Waldorf-pedagogy (German first school opened in in 1919in Stuttgart -, based on Steiner 1861-1925 a German social philosopher and occultist)*, based on, has called for the abolishment of marks. Proponents

of this approach have also argued against the German practice of requiring students who have received poor grades to repeat school years. Waldorf-schools do not get any marks until the end of lower secondary level (grade 10) and remedial measures are conducted for under achieving students so that they do not have to repeat a school year.

*Kerschensteine's pedagogy* proposed the advantages of self-assessments not only for the evaluation of final results but also for each working or learning step in school. Students from

Other related concepts include:

\* **Erlebnis** a German philosophical term for experience. In post-Romantic German philosophy the term took on the connotation of 'lived' non-conceptualized, and sometimes ineffable experience, akin to the stream of *felt experience* which some theorists of consciousness call qualia. **Erlebnis** can be contrasted with **Erfahrung**.

\* **Erfahrung** which denotes more ordinary/vernacular perception of interpreted fact.

\* **Paideia** (ancient Greek) the upbringing of the child to think, communicate and act so that each might be good citizens, earn a decent living, and lead a good life. See: <http://www.paideia.org/content.php/system/index.htm> .

<sup>xliii</sup> Heidegger's '**aletheia**' (emergence/revealing) aletheia is the truth that first appears when something is seen or revealed. It is to take out of hidden-ness to uncover. It is not something that is uniquely connected with that which appears. Allowing something to appear is then the first act of truth; for example, one must give attention to something before it can be a candidate for any further understanding. See Heidegger (1977).

**Compulsory Pedagogy** includes **compulsory participation, compulsory schooling** as in logistical attendance at a physical school and **compulsory education** as in curriculum and **compulsory separation** from one's lived life and **compulsory immersion** in the State.

Further, and crucially, in moving for less, if that is possible, parental involvement and more State interventions, SQP fails to acknowledge that parental involvement by virtue of OECD research (early 2000's) can account for 30% of the difference between students. Abbott and MacTaggart (2010:176). Here we see a link to the Australian Royal Commission into Aboriginal Deaths in Custody [Johnston (1991)] where arguments were adduced that the definition of Custody as detention included living in Aboriginal communities, originally (in the 1880's) designed as 'open prisons' with exit permits required, thus in child welfare statistics in Australia a rebuttal of the position of 'school as detention' should be, and hasn't, adduced. Wildman (2002d).

What is wrong with English Speaking Peoples of the world? On this basis school should be included in detention figures in documents such as UNICEF (2007) (United Nations International Children's Emergency Fund) an overview of Child Welfare in developed nations (comprising 21 Nations, with a footnote to Table 1 indicating that insufficient data on Australia precluded its full inclusion), however on the basis of Australia following the UK in education and training and the US in terms of consumption and media I posit the results in Australia would be consistent in this Anglophone league. This puts **the Anglophone nations** of the USA, UK, Australia and Ireland **at the bottom of the international score card**. The Score Card covered six areas of child welfare: (1) Material Well-Being, (2) Health and Safety, (3) Education Well-Being, (4) Family and Peer Relationships, (5) Behaviours and Risks, (6) Self assessed – Subjective Well-Being.

Indeed **with** authors such as Smyth, J., L. Angus, B. Down, and P. McInerney (2009:79) and Abbott and MacTaggart (2010:182, 250) and Hedges (2009) we ask: '*what is wrong with English-speaking/Anglophone people's*'? Hedges identifies the UK, USA, Australia and Ireland as the primary Anglophone peoples the UNICEF and himself are discussing especially in comparison to the consistent and huge statistical advantage of the Nordic Nations, and I posit the Latin American Nations, over the Anglophone ones. This will I posit have a huge negative impact on our economic performance in the next two decades, when the preschoolers will be entering the workforce and three decades when they will be in the Nation State decision-making group (2030's+) and will also be a huge determinant of the extent to which Australia can identify and take innovative or indeed any steps towards sustainability.

The Nordic and Latino Nations have consistently resisted the commodification of education and to this date retain a massive central commitment to Adult and Community Education and generally continue the Volk College tradition of tertiary colleges for Adults with non credentials – all of which, I would suggest, are vital for Artificer Learning. See also references to Danish Folk Colleges in References – Web section of this eBook.

Aspects of an Alternative Chiro-Pedagogy: **AC-P** will challenge each of these aspects of SQP, and others, and I submit along the following lines]:

1. **School locus of authenticity** to be Gaian/global **glocal** not uniquely national and beyond the Nation State e.g. the International Baccalaureate as minimalist exemplar
2. **School attendance will offer several options to students**
3. **Power relationships** – power with not power over thus the school practices the ‘no about me without me’ principle as a precursor to civic participation with rights and responsibilities. This envisages longer school days where at least 10% of the time is given to collective decision-making and project-making and such decision making experience is one of the principal curriculum requirements for all ages
4. **Such Power relationships to be recast as a subset of civic deliberation and curriculum as a sub set of community service**
5. Design in for teachers/schools/learning centres to have **inclusive equalitarian governance** and power relationships with students and parents  
Setting curriculum priorities – with students, parents and community and then teachers
6. **Curriculum Priorities** to be established through an ongoing forum of civic deliberation inc. all stakeholders
7. **Curriculum** to come from the lived life of the student not a remote pedagogical elite and outworked as a glocal community service [see for instance this series: Wildman, P., [BMARPAux6] World Bush Mechanic Volunteers, in Auxiliary Papers. 2006, Kids and Adults Learning Pty Ltd: Brisbane. p. 3pgs]
8. **Curriculum** to blend thinking and doing in tooled knowledge and green crafting
9. **Curriculum** and learning node design to include mentoring – kids and adults learning
10. **Curriculum must integrate related skill areas** – 720degree – deep joined up learning not specialisation in isolated disciplines – the general is more important than the particular
11. **Curriculum** to be aimed at developing the potential of the individual student not compliance with national testing proforma
12. **Curriculum** experience to seek to embed a love of Life Deep Learning not jumping through accreditation hoops
13. **Curriculum** to break the nexus algorithm between ‘education=learning=and bums on seats’ with ‘each student learning the same thing from the same book on the same day’ in the ‘same year’ many of these characteristics are those of prison based brainwashing. Team, and individual, projects incorporating text screen play and craft to be equally regarded
14. **Curriculum** to aim directly at facilitating the development of engaged critical proactive citizens not disengaged reactive consumers
15. **Curriculum** aimed at co-developing proactive engaged embodied critical literacy and community involvement
16. **Curriculum** to recognise the need to balance focus, intention and general knowledge of each student inc. local knowledge

17. **Curriculum** to provide 4-6 seriously alternative serious experiences for adolescents (senior years at high school) that are recognised within the assessment protocols say for 14-17yr olds a form if one may of National Service inc. community, ecological and military aspects. These experiences to be embedded in the lived life of the student and host community and attract pay if only bed and board so to speak. And to move away from the principal social meme that there can't be progress without competition.
18. **Curriculum** in at least one of the 3-4 genuine alternative pedagogies **to be chiro-pedagogy based** that is tooled knowledge, hand knowledge as equal to and a precursor for head knowledge
19. **Curriculum to include 'D'esign** and involvement in the physiospheric as a generator of noosphere involvement
20. **Go with the 'grain of the brain'**
21. **Curriculum to integrate these points with DIY**, and DIO, DIFWABO & BOWOFO [ Do It Ourselves, Do If For, With and By Ourselves] – By Ourselves, With Ourselves, For Ourselves] - Curriculum needs to be primarily active not passive
22. **Removal of compulsory attendance**
23. Enshrining **rights and responsibilities** of all parties
24. **School design** to be utterly part of the community from which the students come from
25. **De-and re-registration of teachers as learning-facilitators** in these alternative pedagogies
26. **Migration of 80% of pedagogy to web** for learner directed anywhere anytime anything learning
27. Does **include the novel ways of doing conventional pedagogy** mentioned above
28. **Anchor alternative pedagogy in NGO's** not bureaucracies with local autonomy
29. **NGO's to be community owned/community corporations** with at least 60% autonomy and 60% income generation required inc. introduction of vouchers
30. **Allow for 3-4 genuine alternative pedagogies** and certifications of both learning facilitators and students – each to attract the same Government Support.

Further discussion of this arena is beyond the scope of this eBook; however it is listed as an area for further research. These points are rolled into the summary below on emergent chiro-pedagogy.

**What Chiro-Pedagogy is not:** I have sought elsewhere in this series to explicate and compare various types of pedagogy and it is acknowledged that **Chiro-Pedagogy is not a Personal Development pedagogy nor is it a spiritual enlightenment process and nor does it pretend to be.**

Further this eBook series has demonstrated that that: *C-P is a viable macrohistorical exoteric pedagogy for application in civic society/secular space. Further it is a specific application of Action Learning which, in turn is a specific application of Experiential Learning. I submit, however that C-P then loops back, since it connects with the 'grain of our brain' so to speak and through its logic base, reconstructs the meaning of Action, and Experiential Learning in a way that, in joining thinking and doing, births or doula's an alternative Pedagogy.*

How applicable is C-P to present day social circumstances?

C-P is an alternative to present day mainstream pedagogy for, I suggest, at least 50% of students. I say this as it would be impossible to replace the present mainstream pedagogy due to vested interests and even the majority of parents who believe that noospheric scores trump physiospheric chores. So that over time, say a 5 year period – inc. review, I believe that the proportion of parents using the ALP would increase to say 15% then as results were seen he % could increase to say 50% max. over a full decade from introduction.

# From Cognito-Pedagogy to nascent Chiro-Pedagogy

## (a) Aspects of Conventional-Pedagogy - **reconstructed**

**NB1:** Pedagogy, may well be called cognitive pedagogy as it is massively designed to develop the mind excluding the hands, here in this conventional pedagogy is called simply Pedagogy or Cognito-Pedagogy to counterpoint it with that I am seeking to outline herein viz. Chiro-Pedagogy.

**NB1:** While all the following aspects are relevant in their negation to the title of this eBook, **blue** indicates aspects directly relevant as written to chiro-pedagogy; while **green** indicates aspects directly relevant, in their negation; to chiro-pedagogy – the keynote of this eBook.

**NB3:** this section is based on the above section on the **Bushy Logic Base]**

1. **Bureaucratic** - hierarchy with differentiation and regimentation Gatto (2006:78)
2. **Hierarchical not lateral** – break the lateral bond of association among working men Gatto (2006:95)
3. **Consequentialist in its Ethics** – Gatto (2006:96) - in that the end justifies any means
4. **Declensional towards individual violation** cp. the social good – children should be cut to fit (society and industry and school is the ideal manufactory tool there for) Gatto (2006:101)
5. **Punitive** as based on Discipline, Punishment and Fear a symbiosis of the hospital, school, prison and military
6. **Oriented towards the development of each to his/her greatest productivity** cp. potential Gatto (2006:172)
7. **Evidence of ‘Truth in Type’:** Pedagogy and Society are homologues of one another – to see the type of society one lives in understand its pedagogy
8. **Generates the ‘Factory School and School for the Factory’** – Gatto (2006:291) inc elimination of the one teacher vertically integrated community anchored school removed from family and community similar to the elimination and complete subordination of small business with owner operators
9. **Destructive towards active and action oriented literacies** (such as making things, thinking things and critiquing things) Gatto (2006:168). The exemplar Project as an expression of Active Literacy.

### **10. Such that it will not countenance Androgogy eg. Adult Community Education**

Adult Community Education (ACE) has a long and proud history in Queensland and has played an important role in creating pathways for skilling Queenslanders. Adult community education - toward Q2 [PDF 1.5MB] is the Queensland Government's plan to identify the sector as a distinct, diverse and valuable part of the state's education, training and skilling system. The 2008 ministerial declaration on ACE [PDF 1.5MB] has been endorsed by the Ministerial Council for Vocational and Technical Education. The declaration provides a national policy framework which supports a collaborative approach to ACE, particularly in relation to its role in the provision of vocationally focused education and training and fostering the development of skills required for individuals to participate fully in their communities and the economy. <http://training.qld.gov.au/information/ace/index.html> Qld ACE statement after years of not having one (10-2009)

11. **Homotechnic cp. Hetrotechnic** i.e. everyone does the same thing at the same time at their one task cp. each person has a specific role to play in the overall task
12. **Techni cp. Techne** i.e. skill is technical that is separated from the hand or the person doing it cp. seeing skill as an expression of our deepest humanity

13. **Such that it reifies its own epistem as it is self referential and self validating** viz. vertical (silos – academic disciplines, and AQF categorisations, linear sequential causation, scientific method, noospheric/physiospheric split) and horizontal (discrete skill areas, massified society, bureaucratically administered through punitive black letter law). Consequentially, with the advent of the web, Google, Blogs etc. new knowledge seldom comes from within it i.e. from within Universities or within specific disciplines. So that new knowledge's and different and re-new-ed ways of putting the world together remain largely outside this status quo domain. In short Pedagogy credentials the Status Quo. Thus pedagogy is **about massified production** which requires Massified workers and Massified Consumption. Gatto (2006:42)
14. **The Hive V's The Den** – bees V's wolf
15. **Not embodiedly organic learning rather scientifically analytical learning.** See Gatto (2006:135)
16. **Necessary in order to release parents time for the massified factory (of life)** – education of a families children had previously been a large time consumer
17. **Industrial education for the masses** Gatto (2006:139)
18. **An historic conflation of: Darwinism** (social Darwinism – survival of the fittest – school as social conditioning not individual liberation), **Hegelianism** (telos of history as state triumphant and *parens patriae* – see below in red), **Taylorism** (managerialism and specialisation, age cohorts), **and Anglicanism** (mechanical Xtianity and stratified society) Gatto (2006:138 & 143). Cp. **Kropotkin; Adam Smith; Quakers**
19. **Then the braiding of Mass Schooling, Mass Entertaining, Mass Consuming then** braid even meld all break the fold of the local all detach the individual from the family and disrupt glocal forms of learning and ethics – teaching, bread and circuses who ever provided these became the people's, and has become our, master. Mass consumption requires Mass population which requires Mass education Gatto (2006:167)
20. **About harnessing conformity not Harmonising diversity** Gatto (2006:171). Thus it can be argued that **school is homodox not heterodox** and thus is about centralising conformity not harmonising diversity – diversity is out
21. **Love of machine systems replaces love of other.** Gatto (2006:117)
22. **Manifesting of the belief in the perfectibility of human nature** in the form of a cog in the perfected state in a scientific industrial utopianism part of the Modernity Project. This became almost an 'order of the quest' an ad hoc informal guild established to facilitate such an emergence Gatto (2006:119)
23. Evidence of the implicit belief of the State as the default/defacto/nay **emergent prime parent of children** Gatto (2006:119) in effect giving expression to the ancient English tradition of *parens patriae* the sovereign/Government as parent of the nation and as such this principle can override parents roles and rights
24. The strangely narcotic diction and syntax of official pedagogy **which makes it almost impenetrable** to outsiders such as the children it is directed to and the families that supply then as well as to the communities it is supposed to serve Gatto (2006:108)
25. **Competitive V's co-operative.** An analysis of the literature examining this question suggests there are no studies supporting the idea that human nature is essentially competitive. However, there is a large literature (largely cultural anthropology)

supporting the idea that human (and indeed, animal) nature is essentially cooperative (Kohn, 1986). This suggests a disconnection between observed human nature and the generally accepted economic view of it and indeed, with our society's view of human nature.

26. **Prussian Order in action:** Goals of administrative coherence, system order, student predictability, and instructional stability and continuance of the system cp. individual child potential development Gatto (2006:78)
27. **Compulsory** with no participation except submission
28. About collective compliance replaces individual capability Gatto (2006:42)
29. (External) **Time regulated**
30. **Horizontally stratified** - Age cohort based
31. About **Egg Crate Seating** and Organisation- classroom processed and organised as in the cotton mill/
32. **School/Curriculum external to Lived Life of the Student** Gatto (2006:43)
33. **Power over** (by the teacher over the student) models a severely stratified society Gatto (2006:43) cp. power with
34. **Generative of powerlessness of participant/students** - in terms of contributing to curriculum priorities by student or parents or community
35. **In short a braiding** of the *cotton mill* (in terms of a simulacra of the **routinised** compliant educational experience and the socio-economic destination of 90% of students), the *railroad* (in terms of curriculum of unidirectional **lock step student 'progress'**) and *prison* (in terms of school power system and **powerlessness** and non participation of the children). The three defining social innovations of the industrial revolution. Gatto (2006:37). Gatto (2006:308) argues that teaching pedagogy is like lapidary. Cp. **Craftsman; Apprenticeship; Medieval cathedral.**
36. In short a **secular church** practicing mechanical Christianity to mechanical learning where the religion of material paradise is practiced rather than spiritual paradise. A paradise based on order, scientific intelligence, humanism, non risk taking and heaps of material stuff of all sorts – consumptionistas Gatto (2006:114)
37. **Such that it applies and valorises thinking** only the first of the three Artificer learning domains – thinking feeling doing – head heart hand. This can be seen in Bloom's (1956) pedagogical taxonomy viz:
  - (a) **Cognitive:** mental skills (Knowledge) – thinking - head
  - (b) **Affective:** growth in feelings or emotional areas (Attitude) – feeling - heart
  - (c) **Psychomotor:** manual or physical skills (Skills) – Doing – hand
38. **A front for behaviourism and its agent bureaucracy** which excludes input from those directly involved e.g. students, parents and communities. Gatto (2006:308)
39. **About producing** - materialistic, dependent, secular flatland children with poor sense of the future, integrity, and little or no intentionally, agency, independence, critical thought, creativity or self-respect Gatto (2006:310-313)
40. **Existing pedagogy is productive of empty dependent non-self-reliant non-resilient children.** See Gatto (2006:379-380) viz:
  - 1 **Removing children from the business of the world** and their communities and families until time ash passed for them to learn how to self-teach and become self-reliant

- 2 Age-grading them** so that mutual aid, past and future are muted in their considerations until they become irrelevant
- 3 Taking all religion/spirituality/verticality/consciousness out of their lives** except the hidden civil religion of education and of appetite, positive/negative Skinnerian behavioural schedules
- 4 Removing all significant functions from home and family life** except as its role as a dormitory for casual relationships and child minder for school time.
- 5 Making parents unpaid agents of the State**, coerce and recruit them into partnerships to monitor the conformit of their children to the official agenda
- 6 Keeping children under surveillance very minute from dawn to dusk** – supposedly to avoid risk. Fill time with collective activities. Record behaviour and compliance quantitatively
- 7 Addicting the young to electronic displays and ‘games’**. Teach them that these are more desirable to recreation than learning and exercise both are
- 8 Using games and curricula designed as commercial entertainment** (edutainment) to imprint tacitly and to teach pre-planned habits, attitudes and language usage
- 9 Trivialising and remove as much private tradition as possible from young lives**, such as the role of parents, rituals and values around food growing and preparation and family dining and discussion
- 10 Keeping both parents employed with the business of strangers**. Discourage independent livelihoods with low start-up costs. Make compliance a first priority then labour for others a second and obligations outside the family as a third with self development a distant fourth
- 11 Grades, evaluate and assess children constantly and publically and noetically/academically**. Begin early. Make sure everyone knows his or her ranks and conflate ‘learning’ with ‘education’ with ‘compliance ‘ to such grading
- 12 Honouring the highly graded**. Keep grading and real world practical accomplishments as strictly separate so that a false dichotomy can be generated upon which in turn a false meritocracy dependent on the support and coercion of authority can be created. Ensure this is a noetic primacy, Pus the most independent kids to the margin do not tolerate real difference or argument
- 13 Forbidding the efficient transmission of useful and practical knowledge or experience** sho as how build a house , repair a car or make a dress or cook a meal’
- 14 Rewarding dependence and conformity in its many forms**. Call it ‘team-work’
- 15 Establishing visually degraded group environments extracted from their surrounding and supporting communities**, called ‘schools’, and arrange mass movements through these environments at regular intervals with lock stepped age cohort ‘classes’. Encourage a level of hubris so that concentration, habits of civil and civic discourse and intellectual investigation are gradually extinguished from the children’s behavioural repertoire
- 16 Excluding the key raison d’être for the existence thereof** i.e. parents and children/students, from contributing to curriculum priorities. Keep the power for such in the hands of the mandarin elite bureaucratic academic class.

## **(b) Aspects of Conventional Pedagogy - refocused**

Following on from the above what then are some practical ways that we can 'humanise' pedagogy or put Pedagogy in the classroom and lets its young inmates out? These include:

1. **Move school out of school for one term a year** (four terms) - use student placements say for a month a year onto farms or practical projects of social development relevance

2. **Base subject matter on real issues and subjects drawn from the specific student's lived lives**

3. **Use mentors such as local crafts persons and exemplars such as the Apprenticeship systems do**

4. **Reduce compulsoriness of class attendance**

5. **Decentralise the school** into club houses and shop fronts for instance Goodman (1962:33)

6. **Combine Play, socialising, design, construction and discussion within formal pedagogy**

7. **Combine all ages in a Vertically Integrated 'Class' of say 25 kids**

8. **Intervolve in this VIC an integral component of internal and external awareness and capability**

9. **Engage these groups in praxeological activities inc. studies e.g. undertake local 'integrated-integral' class Exemplar Projects**

10. **Braid, interface and integrate practical and academic themes in the curriculum**

11. Should educators, parents and global citizens of all nations wishing to maintain institutions of compulsory education be obliged to determine and **publicly declare an ethically justifiable and globally accountable set of curriculum priorities?** Mochelle (2001:212).

## **(c) Aspects of Chiro-Pedagogy - emergent**

See also section '(PW's) Alternative Pedagogy' above.

**1. Blue aspects above, plus**

**2a. Provision of genuine alternatives** to, yet including, the present monolithic school system. Wherein all so-called 'alternatives' are folded back into it and they become 'pseudo alternatives' such as the debauching of Steiner and other alternative pedagogical systems to fit into the bureaucratic strictures of the dominant and totalising system. This will provide a most challenging task as the present mainstream becomes one albeit the major course in a number of alternatives for (1) schooling generally and (2) various age groups. This will mean the establishment of a genuinely democratic open management group for and of these educational systems or pedagogical options even alternatives with much work needed on outcome co-measurability

**NB1:** I said outcome – getting employment/contributing to Gaia) not output – grades). I suggest no more than say three for four options (1) Home Schooling for instance, (2) Artificer Learning, (3) Steiner (for instance) and (4) present system. Further it may well be possible to incorporate several sub alternatives into (4) such as Montessori, bush education, boat education ed., theatre ed., community service ed. and so forth etc.

**NB2:** (1) & (4) maintain the distinction between noospheric (higher ed.) and physiospheric (voc ed) education.

**2b. Recognition that there is no ‘right education’** other than growing up into a worthwhile world Goodman (1962:55).

**3a. Taming the Beast transforming Pedagogy:** This would mean for instance reorganising, even **reconstructing, existing pedagogy** by: (1) **breaking the monopoly that the Nation State** has on issuing tests and certificates, credentialing; (2) introduction of **educational vouchers** and I would argue to go further and propose ‘educational sets’ where students could negotiate for say 60% of their vouchers for a tailored self-chosen and constructed educational options style **open options learning portfolio**; (3) developing and implementing genuinely **democratic and participative** and inclusive and transparent **educational oversight** (I decline to use the word bureaucracies as this will import all the worst of the elitist top down system we today call education); (4) **allowance for ‘gap years’ with ‘life engagement’ programs**; (5) **age integrated** not segregated **classes**; (6) introduction of mentoring (from outside conventional pedagogy); (6) **pedagogy aimed at the optimum development of the potential of the individual student** on a case by case basis not a lock step one size fits all approach as at present; (7) **practical ethics** for everyday life to be a major focus as I argue would be (8) **artificer type practical skills** now long abandoned; (9) a strong focus on the democratic local even **glocal interpretation of curriculum priorities**.

**3b. Technological enablement**, the web means now that most serious knowledge is outside universities etc and when coupled with distance education means that content experts can be guided by say ‘instructional developers/designers’ to generate learning’s that don’t need a class room nor a conventional lecturer in a conventional office or conventional lecture theatre. Medical dissections and vivisections can now be carried out in flight simulators so to speak. Adult learners (University Students and upper secondary learners) in a sense don’t need ever to be f2f they can use technology as intermediary to be peer2peer. Simply put class rooms with egg create seating arrangement with a teacher with a curriculum with a school administrator are simply no longer necessary they are to my mind a dinosaur from a time long past just as mass production is no longer done with human hands so to speak robots do the work.

**3c. K-A-L Pedagogy:** Here an open age structure is included with each class and the majority of employees at a school are not teachers rather mentors (inc. senior students) much like in a village situation and the pedagogy is drawn from the lived life of the student. K-A-L = Kids-Adults-Learning and Knowledge-Action-Learning.

**4. Practical form of eurythmy** that links psychological development, emotional expression with muscular co-ordination inc. fine and gross motor capabilities through a co-ordination of

dance and movement thus integrating melody, harmony and rhythm. Eurythmy, originally developed by Rudolf Steiner, is often performed with spoken texts such as poetry, stories or plays thus incorporating sounds, rhythms and meters. So we have the integration within the student and students collectively of these six aspects of performative art as craft. Extended here to include co-operation to what for instance in a community project as part of the curriculum where these capabilities are harnessed e.g. for a collectively chosen community benefit. Here Eurythmy can be seen as Visible Speech as well as Visible Singing and in this extended sense Visible Learning.

**5. Gestural praxeology**, here meaning the study of the human hand inc. gestures and movement of the human body distilled into the hand/chiro and amplified through the hand, body and voice and hand writing inc. hand type writing and manifest as Practical Reason in reflexive community benefit oriented exemplar projects.

**6. Bourdieu's scientific approach to Practical Reason** is based on the insight that the deepest logic viz. the 'logic base' of the social world can only be grasped if one plunges into the particularity of an empirical grounded reality historically situated (located and dated), as indeed one is himself, with the object of constructing it as a 'a special case illustrative even exemplar of what is possible'. Bourdieu (1998:2).

**7a. Artificer Learning:** Illustrating this approach to theoretical approach for instance means that in seeking to understand the logic base of the Bush Mechanic I plunge into a particular application of the Bush Mechanics empirical reality viz. I build a boat with a bushy, in Australia as a member of the middle class, from 2003-2008, whereby the boat becomes an exemplar (not perfect) of what is possible in this context. And my grounded research based on this process generated the four principles of the Artificer/Bush Mechanic logic base of (1) exemplar project – walk your talk, (2) social holon – help others, (3) global problematique – save the earth and, (4) action learning – talk your walk.

This then for Bourdieu is an instance of 'local theory' in contradistinction to 'grand theory' that is noted for its lack of reference to any empirical reality. In this sense the Exemplar Project is a hermeneutical expression of the particular Zeitgeist.

**7b. Getting learning under your skin - Techne and Project as existential 'realities':** For Bourdieu individual skills are aggregated into what he calls infra-conscious complicity between the agents and the social world which he calls 'habitus' which ultimately can be as a 'feel for the game' a game and the praxis of following the rules of the game can lead to what he calls 'having the game under your skin' Bourdieu (1998:80) and thence also to a concrete expression of the relationship to the future which may be called a 'project'. In short pretension the relationship through the habitus project to a future that is not future but a future that almost present indeed becoming present, thus linking with Heidegger's aletheia. This in Bush Mechanics terms is, to my mind, techne, and the project the 'exemplar project'.

**7c. Guild Grading:** Here traditionally guild grading has been in terms of evaluating this particular person's exemplar project in order to answer the question 'is this person ready to become our peer and enter the college?' This was an ordinal and not a comparative cardinal grading. Goodman (1962:):107). GG is **not** about comparing students with literacy tests.

**8a. Diversity of Schools:** Here we could try alongside conventional TAFE and High School entities such as Community Service School, Project School, Trade School, Media School, Guided Travel School, Work Camps/Working Be's, Theatre School, Boat School, Farm Schools etc. etc. etc. a distributed netweaved learning system.

### **8b. Valorisation of alternatives:**

#### **8b.1 European Folk Colleges, American Community Colleges and Irish Hedge Schools:**

This diversity could for instance be rolled into the Folk College. For Example somewhat similar to the Danish exemplars, these colleges are intergenerational, allow pedagogical freedom in an androgical ethos without exams and relate to exploring ones character and becoming a better citizen. With echoes of the **American Community Colleges** and the Australian U3A and the now largely defunct Workers Education Associations.

The FC concept, however, is intergenerational and residential. Danish folk high schools (most different to the Prussian Volksschulen which had/have almost the reverse intent), from 1844, when the first one was established, are a unique part of the Scandinavian cultural tradition. They have their roots in the thinking of the 19<sup>th</sup> century philosopher, educationalist and social reformer, N.F.S. Grundtvig and have a commitment to the teaching and practicing of democracy and active citizenship as it is practised in Denmark in an environment of pedagogical freedom where thinking and doing are blended. Often in these colleges at least 50% of the staff are not 'teachers' and yet they assist via. co-mentoring etc of the student.

The first folk high school was founded in Rødding, Denmark in 1844. It began on the initiative of Christen Kold, who was a follower of Grundtvig. The school was inspired by the need to educate those not fortunate enough to have an education and the poor, or peasantry, who could not spare the time or the money to attend a university. Among the other old folk high schools in Denmark are Askov Højskole in Jutland and Vallekilde Højskole in Zealand, both founded in 1865.

As of 2008, there are currently 79 folk high schools in Denmark. The principal subjects of instruction vary from the creative arts such as music, arts, design, writing, to intellectual courses such as religion, philosophy, literature and psychology. Some schools even have courses that specialise in sports. In recent history, globalisation has exercised an increasingly important influence on Danish schools. Many courses are open to foreigners as well as Danes, and many courses include travelling or voluntary stays in other countries as part of the curriculum. [[http://en.wikipedia.org/wiki/Folk\\_high\\_school](http://en.wikipedia.org/wiki/Folk_high_school) and <http://www3.nl.edu/academics/cas/ace/resources/nfsgrundtvig.cfm> ]

**8b.2 Irish Hedge School:** The Irish who could afford the Hedgemaster's fee sent their children to Hedge Schools where Gaelic brehons, storytellers and musicians secretly taught Irish history, tradition, and told tales of the Irish children's ancestry. Popular history places these schools under ruined walls or in dry ditches by the roadside. Some lessons, no doubt, were taught in the shadow of a hedge while others were taught in barns. Some schools even had names, such as the Moate Lane School where Edmund Rice, founder of the Irish Christian Brothers, received his education. Some were even more comfortable than the state sponsored Diocesan and Charter schools and held to a higher standard of instruction,

including classical training in Ovid and Virgil. A Commission of Inquiry reported in 1826 that of the 550,000 pupils enrolled in all schools in Ireland, 403,000 were in Hedge Schools.

A hedge school (Irish names include *scoil chois claí*, *scoil ghairid* and *scoil scairte*) is the name given to an educational practice in 18th and 19th century Ireland, so called due to its rural nature. It came about as local educated men began an oral tradition of teaching the community. With the advent of the commercial world in Ireland after 1600, its peasant society saw the need for greater education.

While the hedge school label suggests the classes always took place out-doors (by a hedgerow), classes were more regularly held in a house or barn. Subjects included primarily basic grammar, English and maths (the fundamental three R's). In some schools the Irish bardic tradition, Latin, history and home economics were also taught. Reading was generally based on chapbooks, sold at fairs, typically with exciting stories of well-known adventurers and outlaws. Payment was generally made per subject, and brighter pupils would often compete locally with their teachers.

The Irish Hedge Schools in short for over a century to the early 1800's these schools were a site of resistance to mainstream pedagogy as well as sources for cultural continuity and Artificer skills viz. home economics. They had done what was needed to demonstrate that the Irish would defy laws that were aimed at destroying their culture and they demonstrated the love of the Irish for learning. They also give us many romantic visions of children and 'Hedgemaster' studying Greek and Latin with the sky as their ceiling and the emerald green turf of Ireland as their floor. John O'Hagan's verse gives us the image of the Hedge Schools that the Irish cherish:

*I Still crouching 'neath the sheltering hedge,  
Or stretched on mountain fern,  
The teacher and his pupils met feloniously to learn.*

[ [http://www.irish-society.org/Hedgemaster%20Archives/hedge\\_schools.htm](http://www.irish-society.org/Hedgemaster%20Archives/hedge_schools.htm)  
[http://en.wikipedia.org/wiki/Hedge\\_school](http://en.wikipedia.org/wiki/Hedge_school) ]

### **8b.3 British Progressive Craft School**

The British Arts and Crafts Movement of the 1950's is particularly informative in this regard. Based on the work of Morris (1890), and Tanner – Barley (1990) general reference Alexander (2001:139-142), specific craft school reference, Kay and Kay (1994). This holistic education movement drew on the tradition of the Owen'ian New Lanark in 1880 and represents the last remaining romantic version of 'progressive' general education in the UK whereby learning is seen to come from thinking as well as feeling. This initiative is immensely important for the principal thesis of this eBook series i.e. that craft can be the vehicle of formal learning. Indeed Developmental Pedagogy for Infants can be traced in our Anglo-European lineage to Owen's New Lanark Infants School opened in 1824. And even further to Locke's 1693 *Some thoughts Concerning Education* which advocated for the first what may be called 'child centred education' and argued that education should be directed at children's characteristics and what would be most useful for them to learn and that this should replace rote learning Alexander (2001:131).

In this exemplar pedagogical system which actually literally existed in the UK into the early 1960's Kelmscott School, Oxfordshire. The system involved children as young as 5 to 11 and older actually taking a local issue or problem and designing a 'hands on' craft in response thereto. This could be a model or a pattern for material that the children generally also contributed to designing and making. Tragically the ethos of this pedagogy and the UK National Pedagogy are poles apart and the latter, tragically, has won out.

Indeed education that advocates the development of agency in students is often seen as a threat to the status quo and as recently as 1991 in the UK such education was described as 'blighting the education of millions of primary school children has been blighted in the name of a progressive and anarchic ideology'. Alexander (2001:141).

**NB1: Progressive pedagogy** thus is considered conflatable with **informal** and **anarchic** pedagogies.

**NB2:** a partial precursor of the British modality of progressive pedagogy may be seen in the **autodidact culture and learning movement** of the early 1800's as part of the English tradition of individual learning, radical dissent and eclecticism. Alexander (2001:140).

**NB3:** Coleridge also advocated for progressive pedagogy in 1808 so that freed of punishments and penalties students (boys sic!) could feel horror at the thought of the slave ship. Alexander (2001:133).

**NB4:** We can see the origins of Adult and Community Education in these discourses.

**8c. Ontogenic not Phylogenic education that is play based.** That is concern with the individual in the group not the group without the individual – the reverse of present pedagogy. With a curriculum for Kids and Adults Learning based on Intelligent Narrative Play – first *ludic paizein* (aimless children's/kittens/academic's play) to *spoudaios paizein* (serious play) to *skhole* serious and studious leisure/play - *gratuitous paizein* – University and the *project paizein* of the Artificer. Also see Bourdieu (1998:128).

**9. The key components of EAII (Educational Actionista II) are (1) family; (2) community and (3) school.** Each component should I argue contribute 1/3<sup>rd</sup> towards the overall education of a person, possibly with the former two somewhat stronger in the childhood days. A metapedagogy needs to be developed to reach over these three with 'T'eachers only involved in (3). This for me is a family responsibility.

**10. Go with the Grain of the Brain.** This eBook and indeed this whole series has attempted to show how pedagogy has drifted away from our origins as humans and has become overtly and overly 'rationalistic' in a narrow sense that separates ages into classes, excludes elders, valorises professionalism, separates thinking and doing as well as voc ed and higher ed and is aimed at producing dumbed down consumers rather than pro active DIY citizens thought over specialisation with no big picture. This is a profound declension in my view and fails to acknowledge evolution over the past 1.4million years and replace it with the positivistic cognitive phantasms of the past 300. Education viz. pedagogy has failed our humanity it goes against the 'grain of the brain' and I would also argue 'against deep human expectations and values.

**11. Unlearning Our Learning (UOL).** In many ways we need to have a pedagogy that can unlearn what we have learnt, a sort of deep unlearning or even de-schooling. One way of

achieving this is I argue, not to abandon education or schooling or learning altogether but rather to shift the focus of pedagogy to give voice to a vital other a silenced other. We need to deconstruct Pedagogy and start somewhere else, and not seek incrementally to change pedagogy from within, then with commitment to open transparent non bureaucratic process we can hopefully stay away from having pedagogy yet again take us to the gates of Abu Gharib. For me this is the shift from the noosphere to the physiosphere from thinking to doing from the sage to the artificer in Chiro-Pedagogy.

**12. Pedagogy and Futures.** There are three basic approaches here taking futures as indicating we are standing at a timeline 30+years out i.e. we 'have' to cross the intergenerational time horizon and move beyond our own lifetimes viz. (1) The future of Pedagogy, (2) The future of alternative pedagogies and, (3) Pedagogy for our Futures. Re: (1) this eBook: (1) is a critique of extant Status Quo Pedagogy and argues it has no future if we are to have a future, (2) situates Chiro-Pedagogy expressed through systems such as Artificer Learning as an exemplar alternative pedagogy among others such as spiritual and Eastern pedagogies etc., (3) As with 11. Unlearning Our Learning above argues that Chiro-Pedagogy represents a critical future path for Pedagogy and as such is deserving of much greater attention than the meagre response which, it has already received.

#### **(d) Chiro-pedagogy wrt education and learning as mnemonics**

##### **EDUCATION**

**E** Exemplar project and life of student and mentor to Expand the mind in 720 degrees

**D** Dedication and Discipline

**U** Universal/Local or Glocal outlook Character development

**A** Artificer Apprenticeship type learning based on Action, Experience and the students Lived Life

**T** Techne - dexterity

**I** Ingenuity with Ideas and Ideals - acting forward wisely

**O** Organisation Nested/Holon

##### **LEARNING**

**L**ove for what one is doing inc. the self and other

**E** Experiential and Exemplar - Mimesis with Emulation inclusive excellence and understanding

**A** Art-ificer Apprenticeship type learning based on Action, Experience and the students Lived Life and includes art, dance and craft

**R** Reuse and Recycling and Repetition with Improvement

**N** Nested/Holon

**I** Improvement - Kaizen and Kaikau (incremental and transformative change respectively)

**N** Noospheric and Physiospheric - thinking and doing blended

**G** Generous outside the 'competitiveness and globalisation boxes''

**Defining Chiro-Pedagogy:** From these one can suggest that the ultimate aim of Chiro-**Pedagogy** then is *the design implementation and review of an intergenerational learning system designed to help develop well rounded robust citizens with skilled hands, open hearts, clear intellects, deep wisdom and practical ethics, all interconnected through the application of their ingenuity in practical individual and group projects of service to*

*humanity and the globe in an exemplar participatory school – community - planet environment [V6:16-02-2010 V1:14-02-2010]. NB: Well rounded robust citizens includes: physical, physiological, psychological, emotional, mutual aid and creative dimensions.*

It is the contention of this eBook that the Artificer/Bush Mechanic is an exemplar of such a Chiro-Pedagogy.

The essential tenet of this eBook series, which culminates a decade research in my life from 50-60, is that *humanity is 'hand-made'* viz. handkind. Consequently I argue that pedagogy should be organised on this basis viz. Chiro-Pedagogy. If this is a legitimate case then the ultimate goal of pedagogy i.e. individual glocal self realisation cp. serving the mass machine needs must also be hand-made.

# Appendix H: Table of Seven Pedagogies

**Table B V2: Seven Pedagogies: Comparison of Seven Ways of Teaching and Learning** – this table examines some twenty learning issues across seven ways of learning.

ISSUES	TECHNE/BM (1)	SCIENTIA (2)	PRAXIS (3)	GNOSIS (4)	RELATIO (5)	PRACTIKE/ARTIFICER (6)	AKADEMOS (7)
<b>Learning Type Pedagogy</b> (student goes to   as   undergoes   given by   and is assessed through)	Learning for Doing School/College/Tech School   Student/App   Instruction   Teachers   Doing/CBT	Learning for Understanding Research Institute   Student/Post Grad   Lectures   Professor   Experiment	Learning for Being Workplace   Professional   Workshops   Demonstration   Professional Project	Learning for Seeing Ashram   Acolyte   Discipline   Guru   Service	Learning for Relating Network   Collective Learner   Group/Network Learning   Group   Trans disciplinary Assignment Hologram inc. I   D   I though largely undifferentiated	Learning from Making Lived Life   Apprentice   KAL Mimesis   Mentor Tradesperson   Exemplar Project	Learning for Knowing Uni   Student   Lectures   Sage-on-Stage   Dissertation (thinking) Idea→Theory (Social Science esp.)
<b>Design Concept: Idea   Design   Imp</b>	Implement (thus idea & design are extant)	Idea/concept (hypoth) ⇒ Design ⇒ revert	Idea ⇒ Implement & ⇒ revert	Idea		Implementation ⇒ Idea ⇒ Design ⇒ Shaping/ Implementation ⇒ revert	
<b>Personal Outcome</b>	Technique – skill Technique – wise skill	Facts 'T'	Reflection	Insight	Empowerment through network	Agency	't' ruth
<b>Focus</b>	External technical reality	External objective reality	External ⇒ internal being	Internal (self)	Self and others (larger self or smaller others)	From acting on the Outside to Inside	Cognoscenti
<b>Knowledge Produced Structure</b>	Practical Crafts	Propositional Subject Disciplines	Experiential Issues	Metaphorical Stories	Relational Interactions	Wisdom through/in Action Innovations/Artifice	Academic/noospheric Lecturers/hierarchy
<b>Teacher's Role</b>	Master	Expert	Facilitator	Storyteller	Co-generator	Guide/mentor	Sage on Stage
<b>Learning Strategies</b>	Practical Demonstrations – Try to do it	Lectures on Theory	Real world Projects	Walkabouts/ Experience	Conversation	Do it to try it	Didactic
<b>Research Style</b>	Applied (Developmental)	Basic (Experimental)	Action (Participative)	Comparative (Reflective)	Grounded/joined up/interface	Reflexive innovation	Focus research
<b>Role of Researcher</b>	Producer of Solutions	Producer of Knowledge	Co-creator of Improvements	Immersed in Stories/ Feelings /Relations	Networker	Micro-worlds, concretized simulations, pilots, exemplar projects	Expert Inquirer
<b>Research Goal</b>	Workplace Solutions	Abstract Knowledge	Local Theory and Action for Change	Insight	Mutual self enactment	System kaizen and system kaikaku (radical Δ)	Papers/publication
<b>Basic Philosophy</b>	Utilitarianism	Positivism	Constructivism	Esotericism	Hermeneutical	Constructivism	Postmodern
<b>Focus of Reflection</b>	What can I now DO?	What do I now KNOW?	Who am I BECOMING?	Who am I NOW?	Who are WE now?	What have I learnt about myself through the innovation?	Who else does this privilege? Who is silenced?
<b>Occupation</b>	Technician	Scientist	Pracademic	Sage	Elder/member	Change Pioneer (Early Adopter one step behind the inventor)	Academic/Senior bureaucrat
<b>Mindscape</b>	Hierarchical	Hierarchical	Individualist	Synergistic	Integral	Nested Hierarchical or Distillated Integral	Cognitive
<b>Casual Layered Analysis</b>	Litany	Social Causes	Socio-personal Causes	Metaphor/Myth	Paradigm/Discourse	Interface/integrated	CLA itself
<b>Paradigm Festival of</b>	Operations Skills	Naming Ideas	Existence Projects	Worldview (nous) Esoteric Insights	Social Matrix Networking	Intervention Artificering	Intellectual Sagacity

Source: Wildman, 2003 (2), 1993 (1), adapted from Wildman, P. and S. Inayatullah, *Ways of Knowing and the Pedagogies of the Future*. Futures 1996, 28(8): p. 723-740. Please note: These categories are indicative only and are not completely mutually exclusive; TECHNE/BM (1) = Bush Mechanic/Volk Handwerker, PRACTIKE/ARTIFICER (6) = extension of/overlap with BM; RELATIO (5) in a physiospheric or practical sense embodies BM&ARTIFICER as well as significantly overlapping with PRAXIS (3) and SCIENTIA (2) to a lesser extent. CBT – Competency Based Training – a form of behaviourist instruction. KAL Mimesis – Kids and Adults Learning – intergenerational learning – through mimesis – copying with understanding ≡ sporting coach

## References

### Web (accessed 01-2010)

#### *General*

[http://www.ratical.org/co-globalize/DO\\_JohnTodd.pdf](http://www.ratical.org/co-globalize/DO_JohnTodd.pdf) The New Alchemists - hydroponics

[http://ionamiller2009.iwarp.com/whats\\_new\\_38.html](http://ionamiller2009.iwarp.com/whats_new_38.html) interface of the exoteric & esoteric artificer

<http://www.danagaynor.com/JPT/issue1/esotericthesis.htm> assessed 05-2009

[http://www.kirkhammotorsports.com/book\\_aoe/](http://www.kirkhammotorsports.com/book_aoe/) sports car exemplar chiro-project

<http://en.wikipedia.org/wiki/Eurythmy> Eurythmy el ar Steiner

<http://scholar.lib.vt.edu/ejournals/SPT/spt.html> the Journal Techne

<http://www.globalproblematique.net/definitions/worldproblematique.html> Global Problematique

<http://www.craftsmanshipmuseum.com/park.htm> USA

#### *Human Evolution*

[http://www.wsu.edu:8001/vwsu/gened/learn-modules/top\\_longfor/phychar/culture-humans-1one.html](http://www.wsu.edu:8001/vwsu/gened/learn-modules/top_longfor/phychar/culture-humans-1one.html) evolution in general

<http://www.onelife.com/evolve/manev.html> human evolution

[http://en.wikipedia.org/wiki/Anthropology#The\\_.22four\\_field.22\\_approach](http://en.wikipedia.org/wiki/Anthropology#The_.22four_field.22_approach) background

[http://goliath.ecnext.com/coms2/gi\\_0199-2924142/In-search-of-the-savage.html](http://goliath.ecnext.com/coms2/gi_0199-2924142/In-search-of-the-savage.html) in search of the savage savage in French Canada in 1534

#### **Pedagogy**

##### *Work and Learning*

<http://rwl5.uwc.ac.za/index.php?module=conferenceprelogin&action=viewcontent&sectionid=1>

[http://rwl6.ruc.dk/RWL6\\_brochure\\_27112007.pdf](http://rwl6.ruc.dk/RWL6_brochure_27112007.pdf) Conferences on 'Researching W & L' - Intl

<http://www.wallnetwork.ca/events/index.htm> W&Life Long Learning Net – Canada

<http://www.wallnetwork.ca/> home page

<http://www.nall.ca/> Network on New Approaches to Life Long Learning - Canada(NALL)

##### *Alternative Esoteric Pedagogy (broadly speaking)*

**NB:** See Ch 10 above.

##### *Alternative Secular/Exoteric Pedagogy (broadly speaking)*

**It is of great ongoing deep concern to this author that there are almost no serious organisations into alternative secular pedagogies on earth. Organisations will meet at least**

**10 out of 14 of the following criteria (developed in this series and summarised below) viz. (Secular Pedagogical Criteria – SPC).**

My research suggests that from a grounded theory perspective these criteria tend to fall into four meta-categories – power, epistem, contextuality, abstractisation, evolution and pedagogical process.

**SPC1:** **this can't be doing the existing pedagogy a different way** e.g. enterprise or discovery or relationship learning etc where the outputs from the schooling are the same as conventional education. [Compulsion, power (top-down), non-participation, uniform testing cp. individual development, credentialing cp. student learning, individual bum on seat numeration cp. collective project, unaccountable externally elite set curriculum which is independent of lived life of the student, teacher authority, classroom organisation – egg crate]

**SPC2:** Authenticity with Human Emergence from an bi0-neuro-evolutionary perspective

**SPC3:** This is about **pedagogy that is kids learning** not androgogy Adult Learning not Action learning for adults etc etc

**SPC4:** This **alternative pedagogy needs must issue from a critique of the epistemology on which conventional pedagogy is based** and carry through to an alternative system of learning for kids (deontological cognitive and practical critique of means AND ends)

**SPC5:** Children are born to learn not to be taught as blank slates tabula rasa like to have the tops of their heads removed and knowledge as unquestioned textual doxa poured in

**SPC6:** This alternative pedagogy needs must be a **discrete identifiable prime focus that has is a substantial resourced holon in someone's/some group's efforts** not a footnote or to be 'read in' to an existing systems theory

**SPC7:** Such a **holon needs must be practical** this is not a Wilber abstract post modern type academic opus but literally a joined up practical kids in learning type actual now today we do xyandz (thinking and doing)

**SPC8:** AC-Pneeds to be **comprehensive** in that it has to be about more than say a particular subject in a particular year or part thereof and has to be oriented to pre, primary and secondary ed **as well as** voc and higher ed for both genders

**SPC9:** Such alternative pedagogy **MUST be secular** and thus grounded in eco-humanity and **aimed at the emergence of the enactive enabling critical global citizen**

**SPC10:** **Education is** seen as student driven learning **about a joined up holonic world**

**SPC11:** That operationalises of **Life Deep Learning** – not a party political or religious exclusivity type aberration

**SPC12:** The institution has **actually sought to implement its alternative pedagogy**

**SPC13:** Since Learning emerges from the lived life of the student oriented it is thus local, bottom up, contingent and provisional

Also see Chapter 10 above for an overview of several exoteric and esoteric alternative pedagogy exemplars. Chapter 10: Examples of Educational Actionista (EA) systems related to Artificer Educational Actionista (AEA)

*Exoteric exemplars*

Russian System of Manual Training; Educational Sloyd

*Esoteric Exemplars*

Montessori System; Steiner/Waldorf Education ; Ananda Marga ; Hare Krishna; Centre for Purposeful Living (CPC).

### **Following Websites Accessed 06-2010**

Androgogy

**Danish Folk Colleges (DFC)**

[http://en.wikipedia.org/wiki/Folk\\_high\\_school](http://en.wikipedia.org/wiki/Folk_high_school)

<http://www3.nl.edu/academics/cas/ace/resources/nfsgrundtvig.cfm> about their founder Nikolaj Frederik Severin Grundtvig 1783-1872

<http://www.infed.org/thinkers/et-grund.htm>

<http://www.infed.org/thinkers/et-grund.htm> Danish University Extension (similar and different to the DFC's)

Looking around Pedagogy from within it **i.e.** Substantially modifying, yet remaining within, Pedagogy (what we want people to learn, who from, how they will learn it and how we will tell if they have are externally set):

**Community Schooling** – USA -

<http://www.communityschools.org/index.php?option=content&task=view&id=38&Itemid=60>

**Constructivism** - <http://www.funderstanding.com/content/constructivism> ;  
<http://www.thirteen.org/edonline/concept2class/constructivism/index.html> (also called Immersion Learning, Discovery Learning, Action Learning, and in this eBook Artificer Learning which are mentored/guided/scaffolded).

Clearly the debate between behaviourism and constructivism as key epistemes underpinning practiced pedagogy of present day school systems, will continue for me and in this series I favour its resolution in 80% constructivism. We need to acknowledge the tragic distortions of behaviourism over the past several decades in obsessive testing to nation standards irrespective of students, communities and planetary abilities, interests and potentials cp. completely unguided discovery for instance where the student could place themselves in some jeopardy. I do however strongly argue that a decade of overcompensation is required and the ball now 80% behaviourist esp. in the Voc Ed arena needs to swing to 80% constructivist as per these above points. The above points however point to a 'constructivism II' perspective or 'constructivism+' pedagogy that moves beyond these debates and beyond constructivism that engage the other 14 points as well.

<http://www.greenhearted.org/> organising pedagogy for sustainability

<http://www.greenhearted.org/transformational-tools-for-sustainability-education.html>

'Transformational education is a process that brings about deep and significant changes (for the better) in an individual and ultimately culminates in similar changes at the societal level, principally brought about through innovative and creative teaching and learning, curriculum reform and appropriate policy at the school level.' - Teweiariki Teairo

<http://www.ccl-cca.ca/CCL/Home?Language=EN> Canadian Council on Learning – includes indigenous learning a huge difference to Australia's forced Income Maintenance approach.

**Bowerbirding Pedagogy from within it:** Collating all the standard bits of pedagogy within pedagogy.

<http://www.lefca.org/> Canada

**Looking outside Pedagogy from within it**

<http://www.21learn.org/> The 21st Century Learning Initiative was established in 1995 by a group of English and American businessmen and organizations to make sense of research on learning and learning processes that were fragmented in many different disciplines, and embedded in many different universities, research institutions and businesses around the world.

**'Barefoot Schools'** – Barefoot Pedagogy based schools of necessity really get this, some of Freire's philosophical descendents continue to do good work - see for example the impact of participatory budgeting (and democratising power) in some Brazilian schools and in the schools linked to The Freire Project -

[http://www.freireproject.org/Freire\\_Critical\\_Pedagogy\\_Project\\_Description](http://www.freireproject.org/Freire_Critical_Pedagogy_Project_Description) . This is a disappointment and does not qualify as alternative pedagogy as it is a strong move by the academic status quo to rehabilitate Freire within their coterie. The Reference Group are all academics any serious attempt at alternative pedagogy HAS to start and stay outside academe and the status quo otherwise it runs the risk of being folded back thereinto just as in this instance. Though Freire's work in the 70's-80's was, and remains, brilliant.

**Multiple Intelligences:** Educational Philosophy - Teaching the Way Students Learn – the Ross School.

<http://www.ross.org/podium/default.aspx?t=36423>

At the heart of the Ross School's educational philosophy is the firm belief that all students can become successful learners and that there are no predetermined limits to what students can accomplish at any age. Ross School teaching methods are informed by the **'theory of multiple intelligences'** developed by Howard Gardner. Students come to Ross School with varying intelligences, abilities, passions and skills. Curricular units are carefully designed to engage students with a variety of learning styles. A broad range of materials, activities, approaches and interconnected learning opportunities encourages each child to discover and develop his or her own strengths. Students are also taught to recognize those areas where they may need to review in order to master required skills and content. Ross School constantly monitors, analyses and refines all aspects of teaching and learning. The result is a 'living' curriculum that evolves to accommodate teaching methods and topics for all grades.

**Looking inside Pedagogy from without it – a necessary practical step in developing alternatives otherwise all we seem to get is retuned more of the same**

[http://www.swaraj.org/shikshantar/ls\\_discussion.html](http://www.swaraj.org/shikshantar/ls_discussion.html) Shikshantar Learning Societies -

It is becoming increasingly clear that our ability to face the challenges of the 21st century will depend on our capacity to learn and unlearn - as individuals, as communities, as societies. It is also becoming clear that the 19th century model of factory-schooling is not only dysfunctional but is also destructive against the vast diversity of processes, knowledge systems and contexts in which human learning and growth takes place. There is an emerging discussion around the world about the need to develop/connect different kinds of spaces and opportunities to nurture a fuller range of human potentials and human relationships. Unfortunately, this discussion has been limited to education experts and elite policy circles. Further, it is in danger of being dominated by technocratic and technocentric visions of progress in which learning only serves elite interests and corporate profit motives. For just and humanizing learning societies to unfold, many more people and their experiences must be involved in the process. We would like to invite you to join us in the discussion.

<http://www.swaraj.org/shikshantar/cultureofschooling.html> **Some Aspects of the Culture of Schooling/Pedagogy**

- 1) Labels, ranks and sorts human beings. It creates a rigid social hierarchy consisting of a small elite class of 'highly educated' and a large lower class of 'failures' and 'illiterates', based on levels of school achievement.
- 2) Imposes uniformity and standardization. It propagates the viewpoint that diversity is a problem, which must be removed if society is to progress.
- 3) Spreads fear, insecurity, violence and silence through its externally-imposed, military-like discipline.
- 4) Forces human beings to violently compete against each other over scarce resources in rigid win-lose situations.
- 5) Confines the motivation for learning to examinations, certificates and jobs. It suppresses all non-school motivations to learn and kills all desire to engage in critical self-evaluation. It centralizes control over the human learning process into the State-Market nexus, taking power away from individuals and communities.
- 6) Commodifies all human beings, Nature, knowledge and social relationships. They are to be extracted, exploited, bought and sold.
- 7) Fragments and compartmentalizes knowledge, human beings and the natural world. It de-links knowledge from wisdom, practical experiences and specific contexts.
- 8) Artificially separates human rationality from human emotions and the human spirit. It imposes a single view of rationality and logic on all people, while simultaneously devaluing many other knowledge systems.
- 9) Privileges literacy (in a few elite languages) over all other forms of human expression and creation. It drives people to distrust their local languages. It prioritizes newspapers, textbooks, television as the only reliable sources of information. These forms of State-Market controlled media cannot be questioned by the general public.
- 10) Reduces the spaces and opportunities for 'valid' human learning by demanding that they all be funnelled through a centrally-controlled institution. It creates artificial divisions between learning and home, work, play, spirituality.
- 11) Destroys the dignity of labour; devalues the learning that takes place through manual work.
- 12) Breaks intergenerational bonds of family and community and increases people's dependency on the Nation-State and Government, on Science and Technology, and on the Market for livelihood and identity.

<http://www.swaraj.org/whatisswaraj.htm> another Indian Flavour – the **Swaraj Schools**

Foundation. The concept of swaraj, or self-rule, was developed during the Indian freedom struggle. In his book *Hind Swaraj* (1909), Gandhi sought to clarify that the meaning behind swaraj was much more than simply 'wanting [systems of] English rule without the Englishman; the tiger's nature but not the tiger.' The crux of his argument centred on the belief that the socio-spiritual underpinnings of British political, economic, bureaucratic, legal, military, and educational institutions were inherently unjust, exploitative and alienating. As Pinto explicates, 'The principal theme of *Hind Swaraj* is the moral inadequacy of western civilization, especially its industrialism, as the model for free India.' Gandhi was particularly critical of the deeply embedded principles of 'might is right' and 'survival of the fittest'.

[http://www.barefootcollege.org/peo\\_approach.asp](http://www.barefootcollege.org/peo_approach.asp) - continuing the Indian Flavour: Barefoot College started by Bunker Roy in India in 1972. It is located at Tilonia village, Rajasthan, India. The college starts out from the actional or practical and then the schooling i.e. doing before thinking and it is only for the poorest of the poor inc. drinking water quality, girl education, health and sanitation, rural unemployment, income generation, electricity and power, as well as social awareness and the conservation of ecological systems in rural India. See also [http://en.wikipedia.org/wiki/Barefoot\\_College](http://en.wikipedia.org/wiki/Barefoot_College) .

William Irwin Thompson's *Transforming History Curriculum* see <http://www.ralph-abraham.org/ross/bahamas2001/chec/index.html> . Excellent and detailed work though intensely cognitive and uses some negative aspects of Integrality to disparage the archaic and is not physiospheric).

<http://www.kal.net.au/> Kids and Adults Learning Australia in particular South East Queensland. See top right hand of menu bar for Adult Learning and these pieces.

**Irish Hedge Schools:** These schools into the early 1800's were a combination of cultural and political resistance though largely within the context of pedagogy yet from without it if only by virtue of being outside in the hedgerows, [http://www.irish-society.org/Hedgemaster%20Archives/hedge\\_schools.htm](http://www.irish-society.org/Hedgemaster%20Archives/hedge_schools.htm)  
[http://en.wikipedia.org/wiki/Hedge\\_school](http://en.wikipedia.org/wiki/Hedge_school)

Royal Society of Arts and Crafts in the UK's whole school initiative – still within pedagogy yet well worth a second look

<http://www.thersa.org/projects/education-campaign>

### **Men's Sheds**

[www.mensheds.com.au](http://www.mensheds.com.au) This site contains a lot of information on men's sheds presented in an easy to view and understand manner.

What is a Menshed? <http://ironbarkcountry.acrobat.com/p39869527/>

What Mensheds Australia Does - <http://ironbarkcountry.acrobat.com/p56592200/>

### **Active Learning Pedagogy**

<http://www.paideia.org/content.php/system/index.htm> US organisation

### **Related sites**

<http://www.bioneers.org/> bioartificers so to speak

<http://www.zeitgeistaustralia.org/> Australian chapter – some projects related to the Australian Bush Mechanic.

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