

The technology of transcendence

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In the effort for building an *engineered independence* respect to the variance of ecological systems, human communities have developed technological solutions defining the space around themselves and the relation with it.

The forms of those solutions are strictly intertwined with religious narratives for many orders of reasons: they provide explanation models and suggest causal connections in what happens and are a complementary instrument respect to technology, overwhelming its limits.

They are the way in which the world is conceptualised and the frame within which an idea of *Sense* could be found. From the quest of this *Sense* and its hierarchies, within the historical path from immanence to transcendence, science and technology were born, and in them lies the cultural origin for the supposed human rights to access and transform reality.

In front of many clues suggesting the existence of a planetary citizenship, the legitimacy of those rights is less and less evident and the understanding of the influence of religious narratives in the evolution of technology and science may be an essential element.

The importance of technology in the history of social systems, and even more in the everyday life of the present time, is so evident that any attempt to statue it would just remark quite an obvious thing; but reflecting on how it is tied to the way human communities have been observing and recounting the reality around is necessary for a greater self-consciousness, facing the problems of the ecological age.

Human communities have always attempted strategies for reducing their subjection to the environmental variance – building what we have defined as “engineered independence” (Bellafiore, 2012) – and the development of technological capabilities, together with that of cognitive instruments, has been a main key of this attempt.

Humans have always used forms of technology to pursue their goals but the early revolution that made of our species something definitely different coincided with the so-called “Neolithic revolution” (Childe, 1957); after that moment humans were the only living form on this planet basing their subsistence not on gathering or hunting but on producing what they needed to survive (Bookchin, 1982): a practice inevitably implying another specific feature, the consciously pursued modification of the world around to make it compliant with human aims, making, in centuries of development, of the human community, an intrinsically scientific and technological one.

But technology has premises that are too often undervalued; indeed, it could not exist without elaboration of casual connections and the capability of producing forecasts and expectations (Bateson, 2000).

Technological capability and its effects on events and natural forces are not absolute, but constrained within a given level of effectiveness, and it was even more true in the past; cultural narratives also had a function complementary to that of technology, not only offering cognitive instruments, but also being explanation models giving a *sense* to things and, through the use of rituals, allowing – at least fictitiously – an intervention, where technology was not able to act.

Today, with the complicity of a self-conscious scientific culture, the room for magical or even religious rituals appears strictly constrained – even if never eliminated – but looking at the longer part of the human history it should clearly turn out how the borders between technology,

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magic, explanation and faith have been largely blurred; any element of this whole had a role, actual or presumed, in the uncertainty reduction, building *engineered independence*.

Speaking of technology “in itself” makes sense only on the base of a consolidated distinction between the world of magic, that of science and that one of technique; a distinction based on specific explanation and representation models, an acquisition quite recent and incomplete in the whole story of social systems.

Looking back at past narratives and at their general features is interesting because it allows to argue some correlations between them and the different attitudes in the use of technology.

Different narratives

Distinguishing in a Manichean way between immanent and transcendent magic-religious traditions would be simply useless and inappropriate because they usually assume hybrids features; but forcing such a polarisation may be useful to stress implications resulting from the different ways in which human communities observed the world and described their collocation in it, affecting the development of science and technology, as well as the relation between social and ecological systems (Westley *et al.*, 2002; Holling *et al.*, 2002).

Immanent and transcendent narratives we are going to examine should be intended here as ideal types, not as definite and literally extant manifestations.

Immanent narratives

In a purely immanent perspective the foundational principle is that any element in the world, as well as any event and the forces producing it, is internal to the perceptible world and belong to it.

Using Bateson’s distinction between *metaphor* and *sacrament* (Bateson, 2000: 33-38), the reality of immanence should be considered as a "sacrament" because of the absolute coincidence of what "is" with what "appears", in a not layered reality.

There being a coincidence between things’ physical nature and their essence, acting forces are unanimated and completely impersonal, it is then necessary to conclude the impossibility of their will; the very concept of finality is consequently excluded *ex ante* and it means the impossibility of finding a *sense* in reality and occurring events.

Given the lack of a *sense* or of a *plan*, there is no room for a peculiar difference of status of humankind, even less for a specific role of it; a kind of horizontal perspective emerges, based on an equality, in which everything is internal to the physical world and it is subjected to environmental variance.

Bookchin observes as communities, based on immanent or very simple animist-like narratives, sometimes “believe they can exert an influence on natural forces greater than the one really allowed” by their technology; but the sense of dependency from natural world never disappears (Bookchin, 1982: 91), putting human community in a condition we may define as of “shared submission”.

Speculating about the kind of technology emerging from an immanent perspective and a condition of shared submission is not simple; both because the civilisations featuring this kind of perspective have usually experienced very a limited technological evolution and because the categories of immanence are invariably far from the ones we culturally use, making a projection difficult.

More fructuous is the case of the relations between social and ecological systems based on this perspective and some results might be more relevant for the present debate than expected

It may be here interesting to recall the case of Tikopia island, firstly documented by Raymond Firth in 1929 (Firth, 2004).

Tikopia has been inhabited for about 3,200 years and, despite the little dimension (5 km²), it

hosted an almost stable population of about 1,200 people. This has been possible only thanks to an intensive but sustainable cultivation (that contemplates also caring the forest), rational use of fresh water, and an extremely strict births control. The island is little and isolated, so any chance of survival just depends on the management of available resources. It is self-evident how Tikopians faced clearly their condition of subjection with a very little room for errors, but they have been able to develop an extremely sophisticated management that has been often compared to an *ante litteram* form of 'permaculture' (Diamond 2005: 288), and they have been able of applying on themselves the conclusions of a deep understanding of the ecological equilibrium of the ecosystem they belonged to, achieving the knowledge and the techniques necessary to turn an inescapable condition of danger into an indefinitely sustainable lifestyle.

What Tikopians empirically built is a set of ethical and practical assumptions about how to manage the relation of their community with the island. The presence of complex conscious elements – like their systemic comprehension, the valorisation of a voluntary zero-growth principle and the creation and maintenance of resilience depots – put them in an intermediate position between those communities passively sustaining a condition of belonging to the natural world, as *inter pares*, and the 'citizenship' of which Callicott talks about, "an uncompromising ecocentric environmental ethic [...] or a form of biotic communitarianism" (Callicott, 1994: 20).

Permaculture (Mollison, 1988) and other analogous approaches are often regarded as some of the most promising models for reorienting our present ones, even moving from a very different background. Indeed if, almost naturally, an immanent perspective implies a condition of involuntary subjection, the opposite is not necessarily true, being perfectly possible to ground a positive idea of ecological citizenship on a transcendent background.

Transcendent narratives

In a transcendent perspective the essence and the physical form of things do not coincide. In Bateson's terms the reality of transcendence is then a *metaphor* because what "appears" is not what it is for. If what appears is not what is, the conception of a multi-layered reality arises, making possible and worthy the quest for a knowledge of the reality's ultimate essence; an essence that is not in things (being external) and different from them (being non-physical).

The idea of an 'order' of reality, not present *in* things but ruling them, and the chance for the existence of a 'sense' underlying reality, quickly require a cause, an origin. A cause that may be a general impersonal principle, or a personal entity (or even more than one), often taking the form of *the Mind*.

The tie between a transcendent perspective and the assumption of a personal entity it is not so obvious as it may appear.

If we consider a prominent narrative like Buddhism that, is definitely framed in a transcendent perspective, it retains quite a world-immanent impersonal conception of sense – being also the idea of the Illumination substantially *this-worldly* (Callicott, 1994: 62).

A little more subtle is the case of Taoism, lying on a border, in which the concept of *tao* is firmly grounded in physical reality while treated with transcendent categories; if in Buddhism and Hinduism (cfr Callicott 1994:47,52) the underlying substance (*brahman*) is separated by the phenomenal and illusory reality (*maya*), in Taoism the "natural" *tao* – that we may roughly intend as the physical reality – is an expression, a mode, of the "constant" *tao*, but it is never separated or even distinguished from it (cfr Callicott 1994:68-69,72).²

² In this sense a comparison between Taoism and the thought of Spinoza is possible, considering his idea of God as *natura naturans* and *natura naturata*. In Spinoza there is a coincidence between nature and its essence because the phenomenal reality is just the expression of modes of the essence with many analogies with Taoism. Indeed, because

Attributing personal features and consciousness to the principle means the chance of an unprecedented form of dialogue or interaction with it, giving to ritual instruments that potential effectiveness lacking in a purely immanent narrative. The peculiar communicative capability, typical of humans, poses them in a sort of privileged position, based on a dialectic unknown to other species, configuring a sort of “privileged submission”.

When the principle has personal features and also takes the role of creator – e.g. as it appears in the Judaic-Christian-Islamic narrative – this may result in the emergence of a vertical, hierarchical perspective, with a Lord ruling everything.

As Bateson observes, a personal entity, in consequence of its *mens*, takes the role of creator and coordinator, becoming also actuator and owner of everything; and it is in the separation of mind and natural world that the idea of divinity is founded (Bateson, 2000).

Within the frame of a personal creator, the role of humankind in the *plan* may widely differ; it is uncommon that narratives of this kind assume an egalitarian or not specific condition; this is consistent with the idea of an instrumental function of magic-religious narratives.

More commonly, according to the hierarchical perspective recalled above, the place for humans is somewhat intermediate between the divine condition and that of other creatures; a role that can be of subjugation and service or with a larger degree of freedom and an inner sake.

In a Mesopotamian etiologic myth, marking that transition tied to the “Neolithic revolution” and the establishment of complex societies, humankind has a purely instrumental function, being created by Marduk to serve gods and cultivate their food (Dalley 2000: 260-261).

But it is in another extraordinary myth that we find a narrative deeply conscious of the tie between human communities and the most important technological discovery of any time – that of agriculture – as well as a statement of the attitude to work on and modify the environment as a part of the human inner essence.

“In Duranki, [the Lord] brought a pile / and made a hoe, / and, the next day, / he instituted work loads, thereby determining the fate / of men to come. / Pointing at the tools for these jobs / Enlil celebrated the Hoe / the golden lapis lazuli-headed Hoe, / and the horn of an unicorn ox / alone on a large embankment! / After admiring the Hoe / the Lord stared its fate, / and, after having crowned it with a bunch of vegetables / carried it into the 'meat-factory' / and used it to put in the mold / the founder of the progeny of men. / Then, in front of him / men multiplied on earth!” (Pedrotti & Fischer, 1996: .27).³

In later narratives like the Judaic one – after inherited by Christianity and Islam – humankind *is* the purpose of the creation and the exploitation of natural resources is not only legitimate but even consistent with God’s will.⁴

Both, the Old Testament⁵ and the Quran⁶, offer many passages in which the dominion of mankind over the world is stated and justified; here we find the roots of an anthropocentric perspective, diffused in Western and Middle-Eastern culture.

Callicott, in his attempt to establish an environmental ethic observes that, beside the *despotic* perspective, in which humankind is the owner and consignee of the extant world, other two

the essence of things and things themselves coalesce, Spinoza establishes *de facto* an immanent perspective, while moving from usually transcendent principles, as Arne Naess widely observed

³ For an analysis of the text cfr (von Franz, 2001).

⁴ In the Quran we can find an intermediate sensibility, recalling the Mesopotamian myth seen above, while explicitly denying it: “And I did not create the jinn and mankind except to worship Me. I do not want from them any provision, nor do I want them to feed Me” (Quran 51:56-57). Jinn are spiritual creatures of Islamic mythology who inhabit an unseen world in dimensions beyond the visible universe of humans.

⁵ See: Genesis (I, 26-30); Genesis (9, 1-3); Psalm 8 (4-9); Psalm 115 (15-16). It is also worthy to mention the 325 Council of Nicaea in which the doctrine of Divine Providence was adopted

⁶ See: Quran 17:70; 2:29; 45:13.

points of view may be grounded in this narrative: the moral *citizenship* perspective we yet introduced – that according to Callicott is quite difficult to ground in the Islamic background (Callicott, 1994: 30) – and that of *stewardship*, according to which humans are on Earth with a unique degree of consciousness and benefits but also with a correspondent amount of responsibility (Callicott, 1994: 23).

But, it is without doubt true that the prevailing perspective in last centuries has been that one of the despotic possession.

The roots of Western science

If the considerations about the different roles imagined for humans within the frame of a transcendent personal narrative are essential for understanding the relation between social and ecological systems, those tied to the epistemological consequences of such a narrative bring us back to the development of science and technology; indeed, the attempt to develop effective explanation models and that of understanding the ratio of the transcendent Mind (or, at least, that one attributed to it), have been strictly intertwined

The process of projection of interpretative categories on the surrounding reality became objectified till the extent of losing the evidence of being a cultural construction and starting a reverse process toward the deduction of a *law*, supposed as natural and universal.

This is particularly evident in the development of Western modern science, where we see a kind of “reverse engineering” cognitive attempt to understand the Mind, through the observation and the analysis of its creation.

As White (1967) observed, in the Western Christianity quite early emerged a *theologia naturalis*, intended exactly as a mean for the knowledge of God, that afterwards evolved in to *philosophia naturalis* which is the direct ancestor of modern science.⁷

“The consistency with which scientists during the long formative centuries of Western science said that the task and the reward of the scientist was “to think God's thoughts after him” – Remarks White – leads one to believe that this was their real motivation. If so, then modern Western science was cast in a matrix of Christian theology” (White, 1967: 1206).

Understanding reality consequently means looking for the hidden laws ruling it, laws that David L. Hall and Roger T. Ames, inspired by Whitehead, consider as expression of a “logical” or “transcendent” order (Callicott 1994: 69-70). We may consider them as “transcendent” because they are conceived as, abstract, separated from physical reality and because they are a product of the transcendent Mind, even if the result is a Western science that assumes a purely immanent perspective as an essential feature, bringing immanent explanation models at an unprecedented level of complexity.

A relevant contribution in this sense has arrived from the transcendent religious-scientific tradition of the Classical age, with streams of thought like that of Pythagoreans, pursuing a sophisticated speculative and scientific activity together with a world-denying ascetism (Callicott, 1994: 23).

Naess cautions about the epistemological consequences of this approach, observing that “between the parts of the world [...] there are internal structural relations. But these are distinguished from the *abstract* structure found or invented by science. The physicist's “world of science is entirely one of abstract structures. [...] They do not belong to the content of the world we are genuinely part of. Abstract structures are structures *of* the world, not *in* the world” (Drengson & Devall 2008: 78-79).

⁷ It suffices here to recall the Sir Isaac Newton, the initiator of modern physics, entitled his *opus magnus* “Principia Mathematica Philosophiae Naturalis.”

Toward a new approach

The *law* of nature and the following scientific perspective are consequently normative applications of human categories on ecological systems.

This act of intellectual *hybris*, strictly correlated, as seen, with religious narratives assuming a dominant condition for humans, have for sure contributed to the Western way to relate with ecological systems and using science and technology for their exploitations.

It would be evidently simplistic to tie this development *just* to the role played by religious narratives – even assuming a derivation of the scientific approaches from them – but it is also reasonable to assume them as relevant element.

Probably, this state of things may be the result of a 'contamination' between the Semitic cultural background and the Greek one, both hierarchically structured, respectively around faith and rationality (Bookchin, 1982).

Also the role played by the personal principle, that here assumes a peculiarly articulated expression, may be necessary but not sufficient to explain the features of the Western tradition. And if, as White observes: “Christianity [especially in its Western form], in absolute contrast to ancient paganism and Asia's religions (except, perhaps, Zoroastrianism), not only established a dualism of man and nature but also insisted that it is God's will that man exploit nature for his proper ends” (White, 1967: 1205), anyway some other qualifying elements need to be found.

An interesting hypothesis, maybe worthy to be analysed more deeply, is based on the otherworldly feature of Christian and Islamic narratives; a feature substantially absent in the Judaic narrative and definitely more attractively depicted than in the Classical one. Collocating the ultimate and more significant part of the existence in a non-terrestrial condition might have favoured an undervaluation of the Earthly life and of its content, with a more rapacious and careless attitude.

With limited reference to the birth of modern science and of present capitalist growth-based economic system, a further contribution of some 'epicurean' elements may have been originated in North-European Christianity, as Weber (1992) originally observed

In the frame of our considerations we may wonder if, in consequence of the immanent character of modern science and technology, a sort of internal teleology might have emerged, making of science, technology and their use the inner and sole scope of themselves.

But whatever its origin may be, *Westernish* science is now a datum and it appears even more like a sort of cognitive frame widely spread in the world and assumed *as is* – without geographical or cultural connotations – a sort of new meta-narrative with no relevant local variations. Given this assumption, the challenge is no more describing its ancestry or simply stressing its inner bias, but looking for an ethic, a narrative, giving us clues on *how* use this instrument we possess.

A help might come from that peculiar and advanced branch of Western science that is ecology, grounded in the analytical method while comprehensive and holistic in outcomes. Ecology tries to focus on those relations between the parts of reality recalled by Naess, but its perspective is far from being a metaphysic; indeed, as Callicott observes in ecology and modern physics “nature is one because of a network of relations,” not “because all phenomenal things variously manifest a single substantive essence” (Callicott 1994: 51), as saw for Taoism (and Spinozism) and, with some specifications, for Buddhism and Hinduism. But, if the underlying reasons are different what emerges is a diffused opportunity for grounding a “citizenship” perspective.

An element supporting this hope, consistently with an immanent view, lies unsuspected in the Confucian doctrine, quasi a sort of moral view of Simmel's *social circles* (Simmel, 1908), according to which the single individual is the result of the sum of her/his multiple relations and the *fair* behaviour is that in which the individual assumes on her/him-self those relations and behaves coherently.

If expanding the number of elements defining a person *is* expanding the number of contexts to which a person belongs and respect to which he/she has responsibility (Callicott, 1994: 81-82), a

narrative contemplating the individual as defined also by relations with non-human world, would imply a larger responsibility toward one's own community (an enlarged community). It is what Val Plumwood (1991) calls a 'self-in-relationship', contending it to be a further improvement respect to Naess's metaphysic idea of *self* (Drengson & Devall 2008: 86), being this strictly 'moral' option, supposedly, easier to be grounded in the Western and Middle-Eastern culture.

It should be quite apparent how this perspective is intimately tied to an immanent-like belonging, strongly recalling Aldo Leopold's 'land ethic' (Leopold, 1986); but the point here is not embracing a strictly immanent perspective, throwing away millennia of cultural evolution – which would be really an unlikely proposal – but trying to re-read it under the light of an undoubtedly condition of shared existence with other parts of biosphere.

How to imagine our science and technology in a landscape characterised by a new form of immanence?

Changing science in itself does not appear as a solution – with disappointment of post-modernist science-deniers – given its effectiveness that, even if partial, has proved to be extremely relevant, and also being the ultimate underlying paradigm of these considerations.

What seems more feasible is to re-orient its use and that of technology within the frame of a moral citizenship, and if it is true that no existence is possible without resources use, it is time to assume the part of shared responsibility paired with the benefits we enjoyed till today.

Technology and science have given us the chance of understanding something essential about the whole we belong to; the next opportunity we have is to learn how to use them in a more respectful way and even, the strange contribution of immanence, when *not* to use them.

As known, belonging to a community implies a limitation of one's own freedom and in this great community we are just and no more than citizens.

References

- Bateson, G. (2000). *Steps to an ecology of mind*. The University of Chicago Press, Chicago.
- Bellafiore, A. (2012). *Ecology of Ideas & Ecology's Ideas*. Kybernetes, in press.
- Bookchin, M. (1982). *The Ecology of Freedom: The Emergence and Dissolution of Hierarchy*. Cheshire Books, Palo Alto.
- Callicott, J.B. (1994). *Earth's Insights: A Multicultural Survey of Ecological Ethics from the Mediterranean Basin to the Australian Outback*. University of California Press, Berkeley.
- Childe, V.G. (1957). *The dawn of European civilization*. Routledge, London.
- Dalley, S. (2000). *Myths from Mesopotamia. Creation, the Flood. Gilgamesh, and the Others*. Oxford University press, Oxford.
- Diamond, J. (2005). *Collapse. How societies choose to fail or survive*. Penguin Books Ltd., London.
- Drengson, A. & Devall, B. (2008) (eds). *Ecology of Wisdom – Writings by Arne Naess*. Counterpoint, Berkeley.
- Firth, R. (2004). *We the Tikopia*. Routledge, London.

- Gunderson, L., & Holling, C.S. (2002) (eds). *Panarchy. Understanding Transformations in Human and Natural Systems*. Island Press, Washington.
- Holling, C.S., Gunderson, L. H., & Peterson, G. (2002). *Sustainability and Panarchies*. In Gunderson & Holling (2002), pp. 63-102.
- Levine, D.N. (1971) (ed). *On individuality and social forms: selected writings*. University of Chicago Press, London.
- Leopold, A. (1986). *A Sand County Almanac*. Ballantine Books, New York.
- Mollison B. (1988), *Permaculture: A Designers' Manual*. Tagari Publications, Sisters Creek, Tasmania, Australia.
- Pedrotti, W., & Fischer, M. (1996) (eds). *Miti della creazione*. Demetra, Bussolengo.
- Plumwood, V. (1991). *Nature, Self, and Gender: Feminism, Environmental Philosophy, and the Critique of Rationalism*. *Hypatia* 6 (1), pp. 3-27.
- Simmel, G. (1908). *Social forms and inner needs* In Levine (1971), pp. 351-352.
- Von Franz, M.-L. (2001). *Creation myths*. Shambhala, Boston.
- Weber, M. (1992). *The Protestant ethic and the spirit of capitalism*. Routledge, London.
- Westley, F., Carpenter, S. R., Brock, W. A., Holling, C.S., & Gunderson, L. H. (2002). *Why Systems of People and Nature are Not Just Social and Ecological Systems*. In Gunderson & Holling (2002), pp. 103-120.
- White, L.J. (1967). *The Historical Roots of Our Ecological Crisis*. *Science*, 155 (3767), pp. 1203-1207.