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# MAPPING CULTURAL AND NATURAL LANDSCAPES

## METAPHORS IN MAPPING HUMAN NATURE

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### Abstract

The article uses the cartographic metaphor to describe the relations between culture and nature, science and life world, signifier and signified. Modernism may be defined as a project to map the whole of human reality to ensure our comprehension and control of it. The Hobbes-Boyle controversy is cited by way of example. Today this project is under critical scrutiny, because there is more to the world than what is captured in maps. The main example of control and reduction of meaning is the way human nature is defined. Nowadays the main factor is not so much ideology of one kind or another but, increasingly, technoscience. Mapping the future of humankind will depend on successful integration of humans with nature, faith with reason, natural sciences with human sciences, physicality with spirituality. Heidegger provides an example of a meaningful way to integrate science and technology with the human life world. Finally, the self-transcending character of human culture remains the driving force behind the process.

*Keywords:* cartographic metaphor, human nature, science as mapping, modernism, post-representation

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### 1. Geographic mapping as a metaphor for our relation to nature

In Saint-Exupéry's *Little prince* the little prince happens to land on a planet occupied by a geographer. He compliments the geographer on his beautiful planet and questions him about its Geography. The geographer is unable to answer because he has no explorers and would rely on them to gather information. "I haven't a single explorer on my planet. It is not the geographer who goes out to count the towns, the rivers, the mountains, the seas, the oceans, and the deserts. The geographer is much too important to go loafing about. He does not leave his desk. But he receives the explorers in his study" [1]. (Interestingly, the philosopher Kant, who lectured in Geography as well, never left his Königsberg!) Nonetheless, having explained to the little prince what geographers do, he asked him to describe his own planet. The little prince replied:

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“I have ... a flower.”

“We do not record flowers,” said the geographer.

“Why is that? The flower is the most beautiful thing on my planet!”

“We do not record them,” said the geographer, “because they are ephemeral.”

“What does that mean – ‘ephemeral’?”

“Geographies,” said the geographer, “are the books which, of all books, are most concerned with matters of consequence. They never become old-fashioned. It is very rarely that a mountain changes its position. It is very rarely that an ocean empties itself of its waters. We write of eternal things.”

The little prince obstinately insisted on learning the meaning of ‘ephemeral’. When the geographer explained that it meant that “which is in danger of speedy disappearance”, the little prince regretted having left his frail flower behind on its own.

‘Eternal things’ are eternal according to human thought and construction. A good example is the recent decision (August 2006) by the International Astronomical Union that Pluto isn’t a planet any more. Our solar system has now only eight planets and Pluto, renamed UB313 is now the largest dwarf planet. A planet is redefined as “a celestial body that is in orbit around the sun, has sufficient mass for its self-gravity to overcome rigid body forces so that it assumes a ... nearly round body shape, and has cleared the neighbourhood around its orbit.” [2]

Very much in passing the author then points out that, by implication, humankind on earth is probably not far removed from the ‘ephemeral’ category - see Foucault’s dictum: “Man is of recent origin and destined to disappear soon.” [3] The comment reads: “Men occupy a very small space upon the Earth. If the two billion inhabitants who people its surface were to stand upright and somewhat crowded together, as they do for some big public assembly, they could easily be put into one public square twenty miles long and twenty miles wide. All humanity could be piled up on a small Pacific islet.” [1, p. 55]

Human beings have mapped their world. Virtually every discipline, practice, philosophical system, tribe and individual has been mapped. Whether the maps are of the physical environment – land, the atmosphere, oceans, celestial space, the human genome – or cultural maps like anthropological, economic or political maps, the fact is that our entire reality has been charted. Many maps are not drawn to scale and use symbols to represent reality. The map of London’s underground railway is user-friendly but by no means accurate! If we had to have all the maps of humankind at our disposal the differences in worldview, Anthropology, God concepts, Epistemology, Ontology, Cosmology, technology, politics, economics and the like would be apparent.

The whole modernist project can be summed up by the mapping metaphor. Mapping is a metaphor for our cultural handling of our world. From mapping our natural, physical environment we can move on to mapping the whole of human reality and draw maps of our genetic, psychological, social, political and religious worlds. But it's not just a matter of representation; more importantly, it needs interpretation.

Maps are cultural artefacts depicting our efforts at representing reality. But reality cannot be 'mirrored' accurately any more than it can be known *an sich*. Although almost 'everything' has been mapped, maps of physical reality remain vitally important. When Galileo changed the map of our solar system he turned the whole of human culture upside down and started the scientific revolution and the Enlightenment. Thus the shift from a static to a dynamic worldview inspired Hobbes, after his encounter with Galileo, to construct his entire philosophy round the metaphor of motion (see his map of the classification of the sciences, [4]). Mapping the human genome is probably going to be the revolution of the 21<sup>st</sup> century.

The 'rediscovery' of human reason during the Enlightenment is reflected in the priority that D'Alembert assigns rationality in his *Preliminary discourse* (his manifesto for the Enlightenment) [5]. He calls the *Preliminary Discourse* a world map (*mappemonde*) of knowledge. The world map of human knowledge has three continents – reason, memory and imagination – each with its various countries and each country with its provinces. The continent of reason, naturally, is at the centre and the largest. Its cardinal feature is Philosophy, divided into the science of being (Metaphysics), religious sciences (Theology, Religion and thence, through abuse, superstition), human sciences (Logic, Ethics), and natural sciences (Mathematics, Physics). The continent of imagination is the source of secular and sacred poetry (including narrative, dramatic and allegorical verse). The continent of memory is the source of history (secular, literary, sacred, ecclesiastic and natural). Reason alone ('the known') yields knowledge ('what science tells us'); memory and imagination produce something else. Poetry and History belong to the unknowable. Both natural and revealed (religious) knowledge fall under Philosophy. Revealed Theology (and things like good and evil) are knowable in the same way as zoology and botany are [6].

The modernist hangover (*überdruss*) we are experiencing today is a result of maps that have become inadequate. The Enlightenment map contained directions (reason) to find a treasure (truth). Once the treasure on a treasure map has been found, the map (its information) becomes worthless. Reason's treasure hunt has come to an end.

### ***1.1. Mapping means control***

A map is an amazing instrument. It is like surveying Paris from the top of the Eiffel tower [7]. Maps give an overview, departure points and terminals, truth, insight, understanding. They reduce the world to a few beacons and lines, to concepts and symbols that we believe capture reality. Maps disenchant the world. Knowing and naming things domesticate them, close distance, verbalise mystique. Cartography disciplines nature. Nature is disciplined through the formation of the various natural scientific disciplines.

Maps are about boundaries. People turn natural boundaries into political boundaries; they create artificial boundaries where there were none in order to demarcate 'inside' from 'outside'. Boundaries identify by classifying, as is evident in anthropological topography (cf Kant's denigration of non-European peoples [8]). Thus maps indicate physical boundaries (rivers, mountain ranges); symbolic boundaries (religious maps, political boundaries, maps showing the spread of aids); and man-made physical boundaries (Berlin wall, Jewish wall on the Palestinian West Bank).

Harley sums it up [9]:

"Power comes from the map and it traverses the way maps are made. Maps are a technology of power, and the key to this is the cartographical process. By this I mean the way maps are compiled and the categories of information selected: the way they are generalized, a set of rules for the abstraction of the landscape; the way the elements in the landscape are formed into hierarchies; and the way various rhetorical styles that also reproduce power are employed to represent landscape. To catalogue the world is to appropriate it, so that all these technical processes represent acts of control over its image which extend beyond the professed uses of cartography. The world is disciplined. The world is normalized. We are prisoners in its spatial matrix. For cartography as much as other forms of knowledge, 'All social action flows through boundaries determined by classification schemes'."

### ***1.2. Cartography as a science, Science as cartography***

Kant believed that Geography (together with Anthropology) defined the preconditions for all knowledge and that such knowledge was a necessary preliminary – he used the term 'propaedeutic' – to everything else. Hence, while Geography was obviously 'pre-critical' or 'pre-scientific', its foundational role meant that it warranted close attention. Geography organises knowledge synthetically by ordering space, as opposed to History, which provides narration in time. Geography is an empirical form of knowledge, marked by contingency and particularity as much as by the universality that can be derived from first principles – presumably one of Kant's aims in order to make it more critical and scientific...

A map is a visual representation of reality. The aim of mapping is to produce a 'correct' relational model of the terrain. Initially art and science combined in map making. Those maps were relegated to wall decorations once science became the sole motive for making maps. Although it is claimed that mapping, as all sciences should be, is value free, this is not really the case. Some of the values governing the cultural production of maps are ethnicity, politics, religion and social class [9, p. 158].

Usually a map is a two-dimensional, geometrically accurate representation of a three-dimensional space. Road maps are perhaps the most widely used maps today and form a subset of navigational maps, which include aeronautical and nautical charts, railroad network maps, and hiking and cycling maps. Quantitatively, the largest number of drawn map sheets is probably composed of local surveys conducted by municipalities, utilities, tax assessors, emergency services providers and other local agencies. A map is a cultural symbolisation of physicality. We usually consult a road map when we don't know or are uncertain about the route to a destination, or are looking for a short cut. But empirical experience precedes abstraction. People tend to be very conservative about familiar routes and do not easily change them, even if someone were to point out a shorter one.

The map is not our ultimate goal, but a means to an end. It helps us to get to a place we want to reach in order to do something else (business, a visit, a holiday). A map is just that: a map, not a territory.

To a great extent mapping (metaphor for truth) does become an end (life) for cartographers and scientists. It occupies most of their lives. Scientists are cartographers. Compiling a map is very different from consulting one. The map has to show some resemblance to the world 'out there'. Not just anyone can compile a map. It takes an expert to do so.

Science and culture require ongoing cartography, because our cultural and intellectual landscape is forever changing. Maps (meanings/representations) are continually changing, for the territory/reality ceaselessly changes. There is nothing as frustrating as losing one's way in a city because one discovers too late that one is using an outdated map. For many South Africans the changing of street and place names is traumatic because changing the name (representation) is just as bad as removing the place. Pretoria is no longer physically Pretoria once it becomes Tswane. It is just another form of forced removal: instead of removing me from my place, the identity of my place (which has become my identity) is removed. Change of designation is experienced as confrontation. From the viewpoint of a black Sotho speakers it may be experienced quite differently as gaining identity.

A map is not an arbitrary construct but a representation of reality. Scientists mediate between humans and nature. They help society to read the world correctly. Nature can easily mislead us. Knowledge and truth help us to know nature, safeguard ourselves and use nature to our advantage.

As a guidebook, a road map tells us the right way. If we don't follow that way we end up on false tracks. There is only one right way and many false tracks. Science, being truth, usually doesn't offer alternative routes. It is either exclusively true or it is nothing. It is, however, reductive. Scientific truth represents no more than a particular slant on the world.

Maps as routes to truth are a figment of modernism. In real life truth as an ultimate is constantly transcended. Western society is built on an epistemology of representation. The world is communicated to us via our senses, intellect, mind and memory. Because these are unreliable, we rely on interpretations of reality captured in cultural development, which includes Religion, History and tradition. Reality is represented primarily by words, which are obviously reductive. Their meaning is determined by a fixed definition and their position in the sentence. That is why one often needs a lot of words to describe reality. In the sciences reality is represented by Mathematics, natural laws, models and metaphors. Those representations are likewise reductive. Although the mathematical and nomological systems that science has devised ostensibly represent reality very adequately, Mathematics remains a symbolic system and reality is more than just symbols. Kant pointed out the impossibility of knowing reality as it really is (*Ding an sich*). We can never know the Kantian *Ding an sich*.

## 2. Mapping the mental world: cultural Geography

Culture in the sense of interaction between life and physicality started millions of years before the advent of homo sapiens. The earliest forms of life were characterised by interaction with their environment, transformation of the environment and transformation by the environment. Culturally human beings are latecomers to the arena of earthly life, uncreatively copying nature and its technology that evolved over the ages. By and large we are ignorant of the complex natural history to which we owe our existence and have only just begun to get an inkling of its miracles.

The term 'nature' is the trickiest to define, with 'culture' coming a close second. Natural processes grow in complexity, reaching a zenith in rationally self-conscious homo sapiens. Crucial aspects of life are to be found in inanimate or material nature, such as energy, atomic and molecular activity, chemical and electromagnetic activity, natural laws and the like – building materials and conditions for generating life of varying degrees of complexity. The evolution of humans into verbalising beings (*zoon logon egon*) epitomises nature's emerging self-awareness or personification [10]. Verbalised existence is self-conscious existence, which is how people recognise themselves as part of nature and see nature reflected in various spheres of their existence. Nature determines Science (natural laws/*lex natura*), rule of law, Religion (*lex divina*), Art, and Philosophy (Natural philosophy, Cosmology). Human beings are nature's self-replication, and as nature's 'other' humans can function beneficially or detrimentally in

relation to themselves. In *Das Kapital* Marx observes, “Man opposes himself to Nature *as one of her own forces*” [11].

Human beings are nature personified. Epitomising her being, they give nature meaning. In them nature achieves consciousness, thus permitting the creation of a mental world, a world of ideas. That is nature in a cultural dimension. Culture is an epiphenomenon of nature, piggy-backing on nature. It depends on physical nature but also transcends it, just as thought depends on the physical brain but is more than the brain and transcends its physical matrix. By verbalising nature, human beings recreate her as sacral nature in their religion; in their science they recreate her as predictable, rule-governed nature; and in technology *homo faber* (literally ‘workman’, since *faber* (Latin, ‘worker’) refers to the strong human thumb that enabled humans to become tool makers) transforms her into manageable nature to serve human needs.

‘Culture’ may be difficult to define, but ‘nature’ is even more so. The fact that both terms are human constructs relating to the specific value or motive one has in mind when using the word accounts for the difficulty. They are ‘interpreted as...’ or ‘regarded as...’ whenever they are explicated in terms of some concept or other. Nature may be interpreted in terms of Darwinian evolution, divine creation, big-bang cosmology, molecular and biological sciences, and so forth. Culture is interpreted in anthropological terms; religiously in terms of Christ (Niebuhr); philosophically in terms of mind (Hegel), history, idea, being, existence; or in terms of contemporary information and computer technology (ICT).

## ***2.1. Nature prepares humans for culture***

In how far does our genetic substratum control the cultural superstratum? Gould said [12]: “Humans are animals and everything we do lies within our biological potential.” This implies that there is no other, extraneous source that governs us. In other words, things like hope, motivation, perseverance, kenotic sacrifice, love – all values, in fact – are reducible to biological, non-reductive physicalism. Many scholars object to this view, calling it reductive, but Jeeves affirms it: “Linden Eaves, having shown us the links between genes and aspects of physical and mental growth, gave us evidence of relationships between genetic factors and the development of religious behaviors, beliefs, and values... [T]he nature of the interdependence increasingly uncovered by scientific research makes a substance dualism harder to maintain...” [13]

The social brain hypothesis posits that the brain develops primarily to equip an animal to fit in with other members of the species. No member of a species can survive on its own, survival is bound up with a group. Hence the evolutionary equipment of an animal that can survive only as a member of a species (within a specific cultural environment) is no less important than its equipment to survive in a particular physical environment. In the case of *homo sapiens* this means that nature prepares us for culture, for culture and all it entails is the mode in which the human species survives.

Baumeister states with complete conviction: “The real question is whether people are better suited to any other form of life than in a cultural society, and the answer to that is no.” [14]

One must be critical of Baumeister’s preponderant emphasis on nature, who in her wisdom predetermines what is good for human beings and prepares them for that. With reference to chimpanzees, for instance, he writes: “So, again the sequence in evolution appears to be that first there were some beginnings of language in other species, and then our own species evolved to be capable of far more extensive use of language. Mother Nature recognized the value of speaking before we appeared on the scene, and we were designed to capitalize on this”. [14, p. 17] In this view nature is personified as a purposive planner, which does not accord with our current understanding of how evolution operates.

Instead of regarding nature as the wise planner of the future of humankind, Dawkins’s notion of accumulative evolution – underscoring its gradual nature, with the occasional leap (‘punctuated equilibrium’) caused by interaction between species and environment – may be more accurate [15].

In this context the interaction between brain and thought is analogously applicable to the nature-culture relationship. Culture supervenes on nature, the substructure (in Marxian terms, culture is the superstructure of nature).

## **2.2. *Hobbes versus Boyle***

Boyle not only established experimentation as a scientific method, but in his polemics with Hobbes it became clear how bias, ideology and worldview influence our interpretation of ‘empirical reality’. In the 1660s Hobbes and Boyle were engaged in a controversy about an air pump: how would one make it, how could it be made, what would be its uses? The pump demonstrated the power of a vacuum, ‘nothingness’. It certainly was one of the most public scientific experiments ever conducted. Everybody got embroiled in the argument. It confirmed the value of scientific experimentation, exceeding that of speculative reason. The controversy went beyond just Boyle’s experimentalism and Hobbes’s rationalism: “[A]t issue as well was the constitution of the social order itself in Restoration England.” It centred on “which authoritative and authentic knowledge could be assigned or denied to knowledge producers by *where* they were located (and how)” [6, p. 424; 16].

Robert Boyle offered his corpuscular or atomic philosophy, as opposed to Pantheism or Materialism, and made it the foundation of Chemistry. This amounted to a Christianised Epicurean atomism (the world is made up of lifeless atoms colliding in the vacuum of space) that Boyle elevated to the status of a hypothesis to be tested experimentally. He saw atomism not just as a theory but as a theory worthy of consideration. The Puritans, like Boyle, upheld the dualism of matter and spirit. A providential God, not chance, was responsible for all motion in the universe. Hobbes and the radicals believed that all matter was endowed with soul and that spirit was immanent in nature. Thus nature operated autonomously. If spirit resided within people and nature, they can be

independent of organised churches supported by tithes and learned ministries. Vitalism, with spirit diffused equally throughout the material world, could also be used to support the notion of human equality and justify in cosmic terms antimonarchical and even democratic political ideals [16]. The Puritans triumphed. The experiments of the Puritan savants also offered a way to knowledge through induction and the testing of hypotheses, as opposed to Hobbes's deductive rationalism.

Both sides submitted their own maps of reality: "The two maps depicted *alternative* cultural universes, with important places and landmarks given different labels and with distinctive grounds for locating a border here or there. The maps guided presumed users to where they could find authentic and credible knowledge and told them why they could not find it outside that space" [6, p. 425].

### **3. Mapping human nature**

Human nature is ancient and has come a long way. (The selfish gene theory holds that every coding segment of DNA seeks its own immortality, and the reproductivity of the organism is the mechanism with which DNA makes more DNA. Genes are selfish and they want to replicate themselves, even if it means eliminating other genes in the competitive process.) That is evident in our genetic geography. Our nature is genetically determined but at the same time malleable. Human nature is primarily determined by nature, who provides the 'building blocks' for cultural influencing. Culture, too, is ancient and is transmitted by cultural DNA ('memes') comprising tradition, education, books, religion, media, trade and any number of influencing factors.

The bill of human rights in our new constitution gives a fair indication of post-apartheid Anthropology and, indirectly, of how human nature is perceived. The bill of human rights is meant to protect human beings against their fellows, against those aspects of human nature that makes them prey on each other like wolves (*homo homini lupus*).

We know now that our language construction is physically determined (Lakoff & Johnson) [17]; that rationality has biological roots (Wuketits) [18]; that our thinking is governed by the physicality of the brain (D'Aquila & Newberg) [19]; that on the whole nature sets the parameters for our cultural development (Baumeister) [14]. Whereas religion once was the main source of human identity, its role is increasingly taken over by technoscience, gene mapping being the cardinal example.

### 3.1. Cartographers of human nature

Every proposal of what human nature is, represents a reductive attempt to find a transcendently inviolable fulcrum which will finally encapsulate what human nature ‘actually’ is: human beings as sinners (flesh, mortality, finitude); images of God; persons (individuals, social beings); verbalising animals; self-conscious nature; apex of evolution; creators of meaning; workers; technicians; designers; irrevocably ‘thrown in the world’ (*Geworfenheit/Dasein*); playful person (*homo ludens*); carriers (slaves) of age-old genetic codes (DNA) [15].

We are born into a society that has already been mapped, where human life is governed by culture and tradition, and where truth is contained in sacred scriptures and secular educational texts. At birth we are irrevocably assigned to a particular group according to our gender, religion, nationality and language. We are destined to form part of a host of classificatory systems and social statistics. Whereas we are born with a relatively open-ended nature that can grow and develop, our cultural identity is quite rigidly dictated. We are born ‘in sin’, more specifically as ‘lost sinners’ needing a roadmap or compass to survive – lifebuoys to be supplied by religion in the form of revelation, scriptures, laws. The roadmap also comprises moral and ethical codes that travellers must observe, as well as doctrinal systems of deliverance that they have to accept. It means that you cannot use just any map: other, ‘alien’ religions will lead the faithful on false tracks. Acceptance into a group comes from using the right map; it means respecting the distinctions of in-group/out-group, true/false and good/evil. Most religions point the way to paradise or the hereafter and believers spend their whole lives travelling to a destination that they only reach when life is over. The image of a curriculum vitae works on the same principle: once you have completed your curriculum vitae, you are no longer around to enjoy it.

We draw the map of human nature, then the map draws us. Human behaviour can be changed by way of changing self-descriptions. That was the tenet in the works of Freud and Marx [20]. We construct the values that are supposed to shape us. An important question is, which cartographers help to alter the map of human nature, culture and civilisation? Nowadays the map of human nature is no longer drawn by a handful of theologians, philosophers and politicians. It is dictated by far greater, more powerful agencies like the media, technology and consumer society. Upshot is that all these maps are designed by humans, even though they may appeal to one or other source of authority. Foucault indicated that the distinction between ‘natural’ and ‘unnatural’ is fundamentally linguistic. He insisted on the paradoxical distinction that the one thing that is not natural is nature itself [21].

Mapping human nature means controlling it. Foucault claimed that many phenomena, such as present-day sexuality, exist because we construct them. The very naming of an object includes the will to control it. There’s probably no such a thing as human nature *an sich*. That would be the same as trying to pin down a person’s identity or personality in terms of some explanation. The human will to meaning seems inevitably to entail transcendence. Religion promises realities

beyond the finitude of mortality and death. Sociology proceeds descriptively and depicts human nature without prescribing normatively what it should be, because there is no transcendent norm (see Weber [22]). Religion describes reality from the angle of a belief that the world was created by God and that its fate (outcome) will be determined by God.

But there is growing resistance to such attempts to pin down human nature. “However, when we talk about the nature of man, we enter a metaphysical dimension of the world, which completely escapes the modern empirical methods of science”. [23] Fukuyama quotes Paul Ehrlich, who expressed the hope “that people would abandon all talk of human nature once and for all because it was a meaningless concept” [24]. This is not simply a rational choice we have. We are irrevocably part of nature, immersed in natural processes and dependent on the natural environment. Without the working concept of human nature it would be impossible to reach any self-understanding or understanding of others. But ‘nature’ is a broad, ambiguous concept and its meaning has to be determined anew in every context.

Have we shifted from radical transcendentalism to radical naturalism? Western anthropology was characterised by a theological interpretation. We are reverting to a different interpretation of human nature – a radically physicalist one. Oviedo says we must resist “the complete naturalization or secularization of the maps of human nature” [25].

### ***3.2. Contours of the religious map: human beings as imago dei***

For 2000 years the notion ‘image of God’ typified the Western image of human nature. But the image of God was only a dim, barely visible watermark on the map of human nature. On that map the Fall and Sin stood out sharply and dictated the bodily aspects of human nature – ‘the flesh’, desire, concupiscence and mortality. The immortal soul was housed somewhere in this earthenware vase, awaiting trial and tribulation. Our worldview affects our concept of God. Long before Feuerbach typified religion as a human projection and the gods as mirrors of human desires and consciousness, Hume [26] stated that “[t]here is a universal tendency among mankind to conceive all beings like themselves, and to transfer to every object, those qualities, with which they are familiarly acquainted, and of which they are intimately conscious. We find human faces in the moon, armies in the clouds; and by natural propensity, if not corrected by experience and reflection, ascribe malice or good-will to every thing, that hurts or pleases us.”

The map of human nature has changed radically. Sharply profiled is the wonder of its evolutionary development, mind-body unity, the absence of soul, the impossibility of a ‘fall’, the naturalness of suffering and death, DNA strings and genetic codes, the ‘image of our evolutionary past’ and the promise of a better future. In the February 2001 edition of the journal *Nature* the Human Genome Project announced that the “sequencing of human DNA was essentially complete” [27]. Originally it was expected that the human genome would

comprise some 100 000 genes, but it turned out to house between 30 000 and 40 000 – double that of a fruit fly. An important development in this regard is the International Haplotype Map, or HapMap. Blood samples collected from around the globe will be used to characterise individual genetic differences, using the database sequence as a key for the comparison. The goal is to determine genetic contributions to disease precisely and even tailor drugs to the patient's unique genetic makeup. HapMap can also be used to highlight slight differences among various groups of the human population. If human nature is viewed simply as the sum of the base pairs, then such differences can be used to justify a variety of ill conceived agendas [28].

The map of human nature has been secularised. The supernatural and the transcendental are part of its evolutionary development and transience. We realise that by now we are created co-creators of human life. This places an enormous responsibility on us: our technological manipulation of life, our 'playing God'. Humans are changing the map, at the same time following its directions to an open future. In the process we realise that we are not entirely free to decide on either plan or direction. We are already determined to some extent by our own technology.

### ***3.3. Human beings as imago imaginis (image of an image): out technoscientific identity***

In our virtual culture reality has become ephemeral, fleeting images flashing past us, especially on the electronic media. This insight dawned even in the days of post-structuralism when books represented reality: behind each book or text there are other books in an ever receding line of texts without any possibility of tracing a primary or normative text. "We become disoriented in hyperspace and lose perspective and the ability to position ourselves cognitively in the great global, multinational and decentered communicational network in which we find ourselves caught as individual subjects" [29].

Cobb avers that the market economy and technology have taken God's place: "By others, providence has been taken over by the polytheism of commodity fetishism and a universe re-enchanted with mythical powers represented by the iconography of brand logos... By yet others the role of divine providence has been transferred to technology, as the great, protective matrix in which we spend our lives, from which we obtain our blessings, and which demands and receives our absolute loyalty... Whatever deep need we have for there to be a power in the cosmos that is omniscient, omnipotent, and omnipresent, the constant whisper of knowledge and rumours on the Web provides a convincing simulacrum." [30]

Caputo writes: "In the future we will see our religion not as supernatural doctrine but as an experiment in selfhood." [31] Consequently we will have to salvage practices of selfhood, valuable modes of consciousness and ways of self-expression.

#### **4. Mapping our future: interdependence between humans and nature; faith and reason; natural and human sciences; physicality and spirituality**

If existence precedes essence, our real-life experience is more important than our abstractions from it. But human beings should not be subdivided into essences and existences either – any more than one should propound either a substantial or a relational ontology. It is not a matter of either brain or thought, of either reason or extension. Nature and culture, faith and reason are intertwined. We must alternate between maps of reality without creating a single mega-map, a master narrative. To live meaningfully is to compose without blotting out certain instruments. Ultimately science and technology are there to serve life. When they become entities in their own right they alienate us from life. Life (terrain) comes first, our mapping is secondary. The map we consult helps to orient us to the world. The technical artefacts we have devised should enhance life. Heidegger cites a good example when he shows how something like a bridge (technoscience) is integrated with human existence. That is the point Heidegger makes in his essay, *Bauen, denken, wohnen*. [32]

He starts the essay by asking what it means to  *dwell* (German,  *wohnen* ). We dwell by building. The purpose of building is to dwell: one builds a dwelling place. Heidegger briefly refers to buildings and structures (in a city) that are not dwelling places but form part of the dwelling horizon. Dwelling refers to where we live, not a place where we seek shelter or work. Etymologically the activity of building is the same as dwelling (to dwell is to build). In High German  *bauen* , ‘to build’, means ‘to dwell’. It can still be traced in the word ‘ *Nachbar* ’ (neighbour), which is made up of ‘ *neah* ’, ‘near’, and ‘ *gebur* ’, ‘dweller’. ‘To be, I am, you are’ ( *ich bin, du bist* ) means ‘to dwell, I dwell, you dwell’. Building as cultivating (Lat.  *colere, cultura* ) and building as the raising of edifices ( *aedificare*  – see edification) are both subsumed in genuine building. Building in the sense of dwelling is people’s daily experience on earth ( *das Gewohnte* ; quotidian). The quotidian has to do with building. The point Heidegger is making is that dwelling is not experienced as what people  *are* ; dwelling is never thought of as the essence of humanness. But what does it mean to dwell ( *wohn* )? The Gothic word ‘ *wuniasi* ’ means ‘to be at peace’. Peace,  *Friede* , means  *das Frye*  (free) which is preserved from danger.  *Hence the fundamental character of dwelling is saving and preserving*  [32, p.149].

What is it that is preserved? First of all, the earth: “Earth is serving bearer, blossoming and fruiting, spreading out in rock and water, rising up into plant and animal” [32, p.149]. But earth is inconceivable without sky, humans are inconceivable without gods. Hence dwelling includes earth and heaven, gods and humankind. The four are one. “To dwell on the earth means to dwell ‘under the sky’. The four – earth and sky, divinities and mortals – belong together in one” [32, p.149].

Dwelling is to preserve all four. “Mortals dwell in the way they preserve the fourfold in its essential being, its presencing. ... Mortals dwell in that they save the earth... To save means to set something free into its own presencing” [32, p.150]. “To spare and preserve means: to take under our care, to look after the fourfold in its presencing” [32, p.151]. To explain what ‘presencing’ is about – being the interaction between the foursome that establishes a special order of existence (*Dasein*, ‘cause to appear’/‘call into being’) – Heidegger cites the example of a bridge. A bridge is a thing (*das Ding*). To Westerners in their mapping of the world a bridge is and remains a bridge (= thing). “The consequence, in the course of Western thought, has been that the thing is represented as an unknown X to which perceptible properties are attached” [32, p.153]. Stripping objects (things) of all non-empirically observable attributes is the legacy of Western science. A bridge is a bridge and the theory of strength of materials can determine its molecular structure. We cannot know a bridge as a Kantian *Ding an sich*; proper bridge construction depends on proper physics and engineering.

The inability to relate Heidegger’s playful interaction between the four factors (‘fourfold’) to a thing like a bridge is in fact a modernist attrition. It is spending our whole life on a map (representation) without ever reaching the destination (life) that the map is supposed to guide us to. For a bridge to ‘bridge’ it has to be drawn into the arena of gods and mortals, earth and heaven. Heidegger writes: “To be sure, the bridge is a thing of its *own* kind; for it gathers the fourfold in *such* a way that it allows a *site* for it.” [32, p.154] The site on a river bank is vacant, empty space. Once the bridge has been built it becomes a location. The bridge gathers the fourfold in such a way that it allows a site for it. It is only once a ‘thing’ has turned space into location that one can speak of a site. A space (*Raum*, *Rum*) indicates a location that has been cleared, a settlement and lodging (cf Heidegger’s notion of a clearing (space) in a forest – *Lichtung* as metaphor for truth). “A space is something that has been made room for, something that is cleared and free, namely within a boundary, Greek *peras*. A boundary is not that at which something stops but, as the Greek recognised, the boundary is that from which something begins its presencing.” [32, p.154] Thus Heidegger turns all geographical categories topsy-turvy for the sake of integrating all dimensions of human existence.

The idea of a cultural landscape approximates what Heidegger had in mind. The concept of a cultural landscape is a bridge between space and society, culture and environment, natural science and human science. Whereas initially Geography, being a science, was tinged by empiricism and logical positivism, it was broadened by expanding the landscape to incorporate historicism, interpretation and humanity. “Landscape studies today are still primarily associated with humanistic inquiry; however, this distinction is less important as epistemological boundaries become blurred in the movement away from methodological dogma” [33]. The concept of landscape integrates nature and culture. Rowntree, following Jackson, lists the following features of creating landscape [33, p. 135]:

- Landscape is anchored in human life.
- It integrates community and environment. The separation and dichotomy of humans and nature is a 19<sup>th</sup> century aberration and in time will pass.
- Landscapes are living, therefore judgments of landscape quality should assess it “as a place for living and working”.
- The individual dwelling is the elementary unit in the landscape.
- Understanding landscape requires attention to the prosaic environments of the workday world, the vernacular.
- All landscapes are symbolic in that they represent striving to achieve a spiritual goal of making the earth over in the image of some heaven (special meaning).

Landscapes are constantly changing; there is no such thing as a static human landscape. Sauer, quoted in [33, p.141], saw landscape as the principal source of information on how humans change the earth.

The traditional line between nature and culture, organism and machine, the natural and the artificial is being systematically erased. We are increasingly living in a world where these old kinds of dualisms are losing their value. “Instead we are living in a culture defined as one where the distinctions among humans, animals, machines, and the non-physical are progressively blurred” (Barnes & Gregory 1997:179).

Many people equate culture with civilisation, hence with cities as opposed to nature, countryside, undeveloped areas. Nature is only ‘artificially’ reappraised and romanticised by disillusioned urbanites seeking a brief reprieve from stifling urban space. “Urban-economic geography took Space as its unique object of analysis; but it was Space devoid of nature, a ‘featureless plain’ about which it could theorize in increasingly mathematical terms... Cultural geography addressed Nature but eschewed formal theory, working with metaphor and narrative at the uncomfortable margins of proper science.” [11, p. 188]

#### ***4.1. The will to transcendence: seeking un-mappable reality***

The modernist project is complete. Nature, God and human nature have been mapped. What difference has it made? Are we really better off, post-religion and post-ignorance? Is a cushioned life of guaranteed human rights, employment, medical care and education really without hazards? Does global democracy make the world a safer place? Do we understand life better after the ICT communication revolution? Is our restlessness assuaged by the avalanche of entertainment that we have within arm’s reach?

Map is not territory, the road map is not the journey. Explaining life does not guarantee living. Postmodernity has dispensed with pinning down humans and nature by mapping them. It means dispensing with mega-metanarratives: “...it is [the] privileging of aesthetics over ethics, of the politics of place and localism over realities of the internationalism of capitalism...” [29, p. 442]. Postmodernism focuses on the incommensurability of reality. If we cannot measure, we cannot compile maps. Maps are about measurement and

comparison. We are confronted with incommensurability, not only in Heisenberg's principle of quantum uncertainty, but also in anthropology's search for understanding, in cognitive sciences and the dead-end street of our metaphysics and epistemologies. Bernstein already pointed out that "the truth of the incommensurability thesis is not closure, but *openness*" [34]. Foundationalism is closure.

We are living in a post-representational era. Not that we don't represent – but we do it knowing full well that *signifiant* and *signifié* do not coincide exactly. In a cartographic context: "They honestly confront the impossibility of representing reality in language – that is, the radical undecidability in the relation between signifieds and signifiers." Such honesty challenges assumed 'connectedness': "...this does not imply that there is no truth, but rather that if there is, we are incapable of pinning it down" [29, p.449]. It implies metaphorising understanding and symbolising existence.

Metaphorising understanding (as above) does not mean that we don't know what we are saying or that we cannot know anything. It means that meaning is 'open', is more than what we are saying. There are maps (meaning) alongside and behind the maps (meaning) that we present. That introduces a playful element into our serious project of mapping (assigning meaning). And in the mapping game, like in poker, we are constantly testing each other's maps/cards/plausibility (epistemologies): it is to constantly 'up the ante'.

The will to transcendence manifests itself in the acknowledgment that reality is 'more' than human rationality and scientific methods. "In a certain sense such relativism requires one to approximate the ancient, pre-Socratic Greek acceptance of both religious and scientific knowledge, where the world of gods ... [was] a sensuous correlate of the aspects of intellectual knowledge." [35] Bunske continues: "It requires recognition that there are different kinds of truth, with each having its own set of criteria or test validity. It further requires that the criteria for one set of truths be not applied to another, that is, the truth of religious belief, a myth, or an imaginative, artistic insight, image, or orientation should not be tested by Cartesian-inspired methodologies."

Don Cupitt says that "the quest for transcendence constitutes a life-enhancing mistake we need to keep on making" [36].

"In the film 'Fight club' Tyler tells the first cell of disenfranchised young men: 'You are not your job, you're not how much money you have in the bank, nor the car you have, the contents of your wallet. You're not your f\*\*\*g khakis.' He circles around to tell them: 'You are not special. You are not a beautiful and unique snowflake. You are the same decaying organic matter as everything else.' With this Tyler invites them to make the one unimpeachable connection with reality that is available to them: to pound one another senseless with their fists; this is the ritual action that allows them to have an experience of ecstatic transcendence." [30, p.293]

## **5. Conclusions**

Mapping nature is one of the achievements of modernism. Mapping the human mind appears to be a more elusive ideal. The most effective language for mapping the mind (which includes emotions like faith, hope, love, fear and loneliness) has always been built on the grammar of transcendence. The transcendent realm encompasses religion, philosophy, myths, symbols, metaphors and every other linguistic capacitor for storing meaning that cannot be expressed unambiguously. Unambiguity kills all imagination and creativity and puts an end to ‘open dialogue’.

Life is an open dialogue (and transcendence is open to the future), in which techno-scientific capitalism is a reluctant participant. We suffer from loss of hope of the better future that modernism promised and tackled with short-lived gusto, but failed to bring about. We romanticise ‘ancient’ cultures, in which ignorance swathed the unknown in mythical allure. Another naivety is little more than mist before the sun of rationalism: modern Western culture harks back to transcendence by resorting to belief in angels, UFOs, New Age adventures and secular spirituality. These alternatives entail a choice between exclusiveness and inclusiveness, between either/or and both/and. Must we really choose between techno-scientific capitalism and pre-modern transcendence, or can techno-scientific capitalism be reconciled with spiritual values?

Neither techno-scientific capitalism nor any form of transcendence should be treated as absolute. Both are threats to humankind. Techno-scientific capitalism is a closed system prone to unbridled growth (like cancer). Any form of spiritual fundamentalism offers its adherents the certitude of one-sidedness and fanatical hope, with all the fatal consequences we hear reported on the daily news.

Is the Heideggerian ideal articulated in his *Bauen denken wohnen* still attainable? Should the story of the little prince’s rose not form part of our authoritative mapping manuals? Can techno-scientific capitalism and ecological responsibility, map and territory, nature and soul be reconciled? Without a doubt meaningful survival, if any, depends on that. Maybe only a new god can save us (à la Heidegger) by charging the human mind’s dynamo with new energy. If human greed and unbridled growth are not curbed, the very notion of a human mind is illusory anyway. That would leave us spectators of a contest in which brute nature and evolutionary, inherited drives fight it out ruthlessly to the bitter end.

Mapping nature and the consequent techno-scientific achievements are a monument to human ingenuity. Maps of human nature can be found in sociology textbooks. Maps of the human mind remain an open agenda. Mapping the mind means opening Pandora’s box and losing hope. Note that hope should not be confused with a desire for limitless power (unbridled growth). Hope in our context is not synonymous with a desire to be like God (*sicut Deus*). It is the hallmark of sufferers, those who want to escape from oppression and suffocation and long for a meaningful, communal life.

Without hope there is no transcendence – and the transcendence offered by human greed is just veiled immanence.

May the ideal remain that after all our mapping we will remember that a road map is always just a map. Mapping isn't life but must take us to a destination where we can celebrate life, respectfully in all its open versatility!

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