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Peace on Earth and Peace with the Earth

Serving the Goodness of God's Creation

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Memorandum and Contributions

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lent science and technology. Epistemological violence can only be resisted with posing epistemic challenges through cognitive participation. Cognitive justice turns the struggles of the subaltern movements into midwives of alternative epistemologies and sciences. Recent decades witnessed the emergence of a “new international” of social movements under the banner of World Social Forum. In their resistance against new manifestations of empire and their commitment to affirm the inbreaking of a different world, diverse groups from diverse contexts are reframing the discourse through cognitive participation. As a result everyday struggles and civil society engagements have become new sites of alternative epistemologies and science and technology that respect and nurture life. “Peace on earth as peace with the earth” challenges us to engage in the cognitive process of contesting violent epistemologies and science and technology and strive to create alternative multicultural epistemologies and sciences and technologies through our participation in the struggles of the subaltern communities.

Fascinated with Domination: The Dark Side of Modernity, Its Ecological Consequences and How to Deal with Them Ethically and Spiritually

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This theme, assigned to me by the organizers of this conference, is as difficult as it is intriguing, since it combines the psychological concept of “fascination” with the social and political notion of “domination”. In the context of this colloquium, the main question is: How does this fascination with domination influence our behaviour towards nature, and what are the consequences this has for peace with the earth and peace on earth? I want to treat this huge question in three steps. Firstly: Why are men (and women)⁴⁸ fascinated by the exercise of power over their fellow human beings and over nature? This anthropological and theological reflection will be followed by a second question asking for the root causes of the present ecological crisis in Western culture: Why was it in the West and not somewhere else that natural science and technology developed as specific ways to relate to non-human nature? Which type of mindset was responsible for this? This leads to the third and final question: What are the ethical imperatives and spiritual resources that may help us to overcome the negative consequences of this development and to regain the balance between man and nature, in other words: how can we effectively respond to the global ecological crisis?

That man/woman is fascinated with domination is an anthropological, e.g. universal human fact. The greater the technical possibilities become, the larger the potential gets to exert power as well as the particular fascination

⁴⁸ The word “man” is used in the sense of *Mensch*, e.g. human being throughout the text, though I include inclusive language to draw attention to the fact that this is gender neutral.

that goes hand in hand with it. Historically speaking, after a long period of technical and scientific progress (since approximately the 13th century), a shift unparalleled in human history has occurred in the 20th century. For the first time in history human beings can destroy their natural habitat and indeed the whole world. Whereas up to this point in time it was nature that threatened man, now this relationship has been reversed. The immense challenge in this situation is to match this paradigmatic change by just as fundamental a change in human attitudes and mores as well as in spirituality. Whether this is possible or not is an important if not the most existential question for humanity in our time.

1. Why are humans fascinated with domination? Anthropological and theological reflections

Domination constitutes a fact of all facets of life. It is the consequence of a universal human disposition towards subduing the Other, man as well as nature, to use them as instruments for his/her own purposes instead of as ends in themselves. This inherent trend in human nature towards domination, self-assertion and power is also a consequence of man's existential vulnerability. Nature as well as other human beings nourish *and* threaten us; they are life-giving, but they may also reduce or even destroy our life chances. With regard to nature: Human life depends on a natural basis. Adam, the earthling, cannot exist without the resources of the earth while wresting his livelihood from it, is a never-ending struggle:

"In toil you shall eat of it [e.g. of the earth] all the days of your life; thorns and thistles it shall bring forth to you and you shall eat the plants of the field. By the sweat of your face you shall eat bread ... (Gen 3:17-18)"

This text of Genesis very well describes the human lot and shows man's predicament. His/her dependence on the earth causes never ending toil for him/her. He/she has to gain his/her livelihood through hard work in a struggle against "thorns and thistles", e.g. nature which is hostile and indifferent to man's survival. This fight against the overpowering forces of nature has been a fact for humanity all through the ages: Will the next harvest be good? Will it be sufficient to carry us through the year? How

can we protect it against worms, locusts, drought, flood or hail? These are the questions billions of people continue to worry about even today. One may well become pensive over the fact that these existential concerns have lost their urgency for those in affluent Western societies. It is only in view of the present ecological and food crises that we are starting again to hear their echo like the rumbling of a thunderstorm coming closer. It is to be hoped that this creates a heightened awareness of the interrelatedness of global social and ecological problems so as to make us better understand the vulnerability of others who depend on natural resources they cannot easily control.

Still, the inherent need for humans to harness the scarce resources of the earth with intelligence in order to live and survive has been the human experience through the ages. It is from this background that we have to understand the profound change we are confronted with today. Because the danger, one may say, had come from elsewhere for too long, and still does so for much of humanity, it is not easy to grasp the immense ecological challenge and to take the right actions.

But there is another properly theological point in the Book of Genesis: this human condition is the result of sin. This means, that the reality as we experience it is the consequence of a fundamental breach in man's relationship with God which not only soured his/her relations with fellow human beings but also affected the whole cosmos. Whereas the *fact* of domination may easily be observed in social reality, to interpret it as a result of human sin is specific to the Jewish and Christian traditions, e.g. it takes its plausibility from revelation and not from reason. Other religions and world-views have different explanations for why there is evil in the world and why there is violence against humans and nature. This merits further reflection.

The story of the Fall in the first chapters of Genesis is - as is well known - not a description of something that happened in a far off past, but rather constitutes an aetiology of the human condition as such. Its aim is to explain the difference between the world as we experience it, in its brokenness and often cruelty, and the world as it ought to be, according to God's will and original intention, that is good and peaceful. The narrative in Gen-

esis thus is to answer the question why men and women live so to speak in two different worlds – in one which IS and one that OUGHT TO BE – and thus in permanent tension and unrest. Traditional theology expresses this by differentiating between a *natura pura*, which means creation before the Fall, and a *natura lapsa*, which describes creation after the Fall, e.g. the broken reality as we experience it. This difference constitutes the very reason for humankind and nature being in need of redemption. The biblical story, however, also asserts that this tension between the world as it is and as it ought to be will be overcome at the end of time, in the *eschaton*, when God's promise and ultimate aim will be realized – in spite of all the catastrophes on human history and human guilt. The biblical revelation thus links the creation of the world at the beginning to God's recreation of "a new heaven and earth, in which justice reigns" (1 Peter 3:13) at the end of time. According to St. Paul this redemption includes the whole cosmos together with man:

"For the creation waits with eager longing for the revealing of the sons of God; for the creation was subjected to futility, not of its own will but by the will of him who subjected it in hope; because the creation itself will be set free from its bondage to decay and obtain the glorious liberty of the children of God. We know that the whole creation has been groaning in travail until now." (Romans 8: 19-22, RSV).

This eschatological promise of a peaceful world to come is not, of course, meant to justify a quietist attitude. Much to the contrary it is to inspire and motivate actions to ease human suffering and to conserve nature and its resources.

Man clearly stands at the centre of this narrative. Being created in the image and likeness of God s/he has been endowed with specific qualities, mainly free will and creativity. His/her position in the universe is thus a privileged one. The flipside of this is that s/he carries responsibility for the other as well as for creation. To give up on the uniqueness of man also means to negate or reduce his/her responsibility. Anthropocentrism understood in this way constitutes a core element of Christian faith, which cannot be relegated. It seems difficult to bring the rejection of the centrality of man in the on going drama of the world, as proposed by some of the

current reflections on eco-justice in accordance with the biblical narrative. What weighs even more, is that it may leave us with a reduced rather than with a heightened sense of responsibility something most urgently needed in the present age.

It makes us forget, that the *conditio humana* – and here man's fascination with domination comes into the picture – is not only characterized by deprivation, but also by some inner corruption. Very often it is not a sense of responsibility vis-à-vis God's creation which inspires humans, but rather feelings of superiority and hubris. Etymologically the word fascination derives from the Latin *fascinere*, *fascinatus*, which means to "bewitch, enchant". There is, in other words, something bewitching in the power human beings exert over their fellow man and over nature which goes beyond the merely rational and even utilitarian aspect.⁴⁹

In his *Confessions*, St. Augustine narrates a story, which is rather telling in this regard.⁵⁰ As a boy he once stole pears from a garden. Since this is not really an unusual thing for a youngster to do, it is somewhat surprising that he accords such prominence to this minor event in his memoirs. One may see in this the overly refined conscience of a potential saint, but I think there is something else, which made this incidence so memorable for him. What troubled Augustine was not primarily that he stole the pears, but that after having picked the fruits, he destroyed them. It was this nonsensical act of destruction which bothered him. It was the lust of destruction he experienced which the master of psychological introspection remembered with disgust even years later. It showed to him that evil acts exert an irrational fascination, in other words, that there is something bewitching in them. This was the more troubling for him since it was contrary to what ancient Greek philosophy had to say about evil, equating it with ignorance. Augustine realized through this episode that this was not the whole story. There is more to evil. Something in us is bewitched by domination – which at the same time alienates us from ourselves. In this sense also the power exerted over nature through natural science and

⁴⁹ The analysis of Erich Fromm, who showed how the totalitarian fascination with power led to the destruction of others and ultimately to self-destruction is still very enlightening in this regard. Cf. Erich Fromm, *The Anatomy of Human Destructiveness*, New York 1973.

⁵⁰ Augustinus, *Confessiones*, 2.4.9.

technology is accompanied by bewitching feelings of fascination about our achievements, it gives humans an intense sense of power which makes them feel God-like (Gen 3:5). Modern science has greatly enhanced the quality of life for many humans in a way that was unthinkable even a century ago. But it has also an outright evil and even blasphemous side. That this is so was driven home to me some months ago, when the editor of an Austrian peace journal asked me to write an article on the anniversary of the dropping of the bomb on Hiroshima on 6 August 1945. Only then did I realize that the 6th of August is the feast of the Transfiguration in Christian liturgy. On that occasion I also learned that the first atomic bomb explosion was called "the Trinity test" by J. Robert Oppenheimer, its scientific father.

We are here confronted with the most sinister side of human nature, which modern liberal thought tends to negate altogether. It is obviously an oversimplification to see man as a rational individual driven by enlightened self-interest. There are highly irrational sides to his/her behaviour, which tend to infect all his actions. The desire for power often makes him/her lose sight of the original aim of his/her actions. As Lord Acton put it in his famous saying: "Power tends to corrupt, and absolute power corrupts absolutely."

If we look at the situation in the world today, at least in its more affluent regions, this is a burning issue. Though we know that there are ecological and social dilemmas of enormous magnitude, our fascination with technology has become an aim in itself. We subdue and exploit nature without asking or being able to ask whether this is still beneficial to life in all its forms - now and in the future. Science and technology have improved life considerably in the past, in quantity as well as in quality. This should not be overlooked since it constitutes the very reason for the on going attractiveness of technical modernity. However, there is an obsession with technology that no longer links it to the improvement of life, even if it is still pretended that technical inventions aim at it. Rather, technology and the consumption of goods have become an end in itself. The development has thus taken us far beyond what is good and useful for humankind and bearable for nature.

2. How We Got Into This Predicament:

A Short Story of the Flipside of Western Civilization

In his famous poem "The Sorcerer's Apprentice" (*Der Zauberlehrling*) Johann Wolfgang von Goethe tells the following story: One day, after the sorcerer has left his house, his apprentice decides to recite the spell and call the spirits. They indeed appear on his command. He orders them to carry water in buckets to fill the bath tub. This they do with great efficiency carrying in bucket after bucket of water. However, when the tub is full he realizes that he does not know the spell to stop them. So the spirits continue their work. When he tries to split one of them with his axe into half, each of the two parts carries in water. What started as a beneficial though somewhat banal enterprise - the aim was after all an increase in comfort - threatens to turn into a real catastrophe. The spirits carry in more and more water. The house becomes flooded, and nobody knows the magic formula to stop them. In Goethe's poem the master returns right in time to prevent the worst, asserting that he alone has the right to call the spirits.

Amazingly enough, Goethe (as also other writings show) already foresaw, at the beginning of the 19th century, the long-term problems caused by technological progress. His question is basically the same as it is ours today: How will modern man harness the spirits he unleashed? Who will be able to speak the saving word "enough" and tame the forces of technological science, which have acquired a life of their own? Other than in the poem there is no master who may return, no *deus ex machina* who can change the situation to the better. So man has to face up to the situation and see how s/he can change it - though s/he may hope for God's grace.

How - one may ask - did we get into this predicament in the first place? It is obvious: Modern science and technology developed in the context of Western culture. But why? There has been an ongoing debate about this since the beginning of the 20th century which was initiated by Max Weber. Weber refuted the claim of Karl Marx that the only reason for this development was consecutive changes in the mode of production. He considered the materialist explanation to be insufficient and tried to show

that immaterial factors, such as religion, culture and ethics, also played a decisive role in bringing about modern civilization. Weber put this claim forward in his *Protestant Ethic and the Spirit of Capitalism* (1904/05) underpinning it later on in several volumes of his *Ethics of World Religions*. In the treatise on Judaism he points at a highly relevant theological as well as ethical fact. The basic distinction between God (the creator) and the world (creation) first emphasized in Judaism and then in the other monotheistic religions Christianity and Islam constitutes a precondition for man being a free and responsible agent.⁵¹ Monotheism liberates man in that it makes him/her responsible to *one* deity only, whereas in a magical world s/he is confronted with different deities and spirits, which s/he has to please. Secondly - and perhaps even more important - within the biblical tradition the emphasis moves from the idea that this deity demands material (mostly animal) sacrifices to the radically different notion that all God desires is morally right and good action. This can be seen in numerous words in the Psalms. The central verse of the prophet Hosea making this clear is: "For I desired mercy, and not sacrifice; and the knowledge of God more than burnt offerings." (Hosea 6:6). This word is taken up verbatim in the New Testament, where Jesus repeats it in his teachings (Mt 9:13; 12:7). The belief in a God which creates man/woman as responsible actors freeing them from the dependency on spirits and other gods leads to what Weber calls the disenchantment of the world. God and the world are distinct. Man is part of creation, but with a special relationship to his creator. But - one may ask - does this monotheistic world view not encourage him/her to wield the purely instrumental attitude towards non-human nature, which lies at the basis of our ecological crisis? This question runs like a red thread through the present discussions on ecology. It often is answered in the affirmative by referring to Genesis (1:27) making God's "commandment" to the first couple to dominate the earth, responsible for the disastrous state of today's world. This position was brought forward by Carl Amery in his famous book *The End of Providence. The Disastrous Consequences of Christianity*⁵² and has been repeated ever since. I cannot go into this whole debate in detail; however, according to biblical

51 Max Weber, *Gesammelte Schriften zur Religionssoziologie*, Band III, Tübingen 1988, 77.

52 Carl Amery, *Das Ende der Vorsehung. Die gnadenlosen Folgen des Christentums*, Hamburg 1972.

exegesis, this verse cannot carry the weight of the argument. Firstly God's word is not formulated as a commandment, but rather as a promise made to Adam and Eve that they will survive in the face of the overpowering forces of nature. Moreover "to subdue them and have dominion over nature" (as the English text of Gen 1:28 reads) actually is a highly questionable translation. The word *radah* in Hebrew in most contexts means "to guide, to lead towards pastures and in this sense to rule". The text thus rather conveys the idea that humans are to rule the earth as guardians or good kings as seen in the Old Orient.⁵³ Apart from these exegetical assertions, to make the biblical message responsible for the destruction of the natural environment in modern times is highly anachronistic. It is a form of Biblicism turned upside down. Biblical texts simply cannot provide guidance on issues which were not on the agenda in the 6th century B. C. At that time humans fought against bad harvests and wild animals; but did not struggle with the consequences of CO₂ emissions and the disposal of nuclear waste was not a problem. That man himself might become a threat to his/her natural environment was as unconceivable then as the construction of airplanes and microchips.

Still, it has to be acknowledged, that the ability to dominate and transform nature through science and technology with its positive and negative side effects, has developed in a civilization with powerful Christian roots and traditions. To be more precise: it was *Western Christianity* in the realm of which natural science was invented and technically applied. For Charles Taylor, who in his recent book, *A Secular Age*, gives an overview of the making of Western culture, there were strong currents of thought in the West from the beginning which saw man as opposed to nature. The reasons are various. One of them may be spiritual: the Augustinian distinction between *uti* and *frui*, which was highly influential in the West, draws a sharp line between God and the world. God alone is the aim in whom (here whom is modifying 'aim'. Perhaps this: The aim is God alone, in whom Christians...) Christians may rejoice and find peace (*frui*), whereas all other things on earth are there to serve and be utilized by them (*uti*).

53 According to Norbert Lohfink, *radah* does not mean to tramp down. Cf. his "Wachstum. Die Priesterschrift und die Grenzen des Wachstums", in: Idem, *Unsere grossen Wörter. Das Alte Testament zu Themen dieser Jahre*, Freiburg 1985, 156-171, 167-8.

Is this a first step towards a purely instrumental world view and a utilitarian attitude towards earthly things? The question must not be answered to the affirmative all too fast, because in Augustine's theology the utilitarian approach towards the material world is of course counterbalanced by an acute sense of the oneness of all creation, in which humans are to discern the *vestigia Dei* with awe and inspiration. "Therefore" -Augustine wrote - "it is not with respect to our convenience or discomfort, but with respect to their own nature, that the creatures are glorifying their artificer."⁵⁴ Natural species of all kinds do have a worth of their own because they are created by God - and this makes them more than mere material for human needs.

In the 13th century Western culture moved into a new phase, one of the consequences of this being a profound transformation in its attitude towards nature. The main reasons for this epochal breach, which has rightly been called a first modernity, were the reception of Aristotle, with his more experimental stance by Thomas Aquinas and others, a sort of economic prosperity (Early Capitalism) and - perhaps most important - the intellectual movement of nominalism as a new epistemology.⁵⁵ At that time not only does man become fascinated with nature and its laws as such, but also with his ability to penetrate its secrets through experimental research. As Roger Bacon (1214-1294), a Franciscan and one of the first experimental scholars, wrote: "We need to put nature on a torturer's bed to draw its secrets from it." At the time this rather violent approach to nature was still embedded in an overall world view that tended to reject rather than to be obsessed with science. It is, however, the beginning of an epoch, in which nature comes to be seen as an object of man's research with which he can proceed at his will. What fascinated the first researchers in the High Middle Ages was the idea of a natural order of things which can be discovered and put at man's service - making him a designer comparable to God himself. There are beautiful manuscripts from this period depicting God with a circle in his hands constructing the earth.

⁵⁴ Cited in Charles Taylor, *A Secular Age*, 342.

⁵⁵ For Ivan Illich, a fierce critic of modern society and its waste of resources, this is when the personal model of Christianity was corrupted becoming the impersonal model of modernity. Cf. Ivan Illich, *The Rivers North of the Future. The Testament of Ivan Illich as Told by David Cayley*, Toronto 2005.

Man is to do likewise. Since God has endowed him/her with the ability to discover the laws of nature, he can discern God's master plan of creation and thus participate in His creativity. Thomas Aquinas' natural law theory offers the classical expression of this idea and mind set: Through his/her reason man can grasp the *lex aeterna* (the laws of God's creation) albeit imperfectly in the *lex naturalis*.⁵⁶ To trace God's design in nature is a fascinating as well as pious enterprise; however, in the long run, this changes the notion of God himself who becomes the constructor of a world machine, which functions best when left to itself.⁵⁷ From this deistic world view it was only a step to the separation of the immanent from the transcendent sphere, the natural from the supernatural. For Descartes the *res cogitans*, e.g. human reason as the very essence of human subjectivity, is the opposite of nature (also human nature), which becomes a mere object, a *res extensa*. This subject-object dualism lies at the basis of modern science. Nature is the Other of man and his reason. It consists of energy and material to which s/he can only relate in an instrumental way. What makes this world view problematic is that man "forgets" that s/he is part of nature, a biological being that is also mortal - in the words of Genesis "that he is dirt and will return to dirt." (Gen 3:17). Whereas the idea of man being created as an *imago Dei* was retained by the early writers of modernity, the notion of the *vestigia Dei* in nature was lost. This results in a utilitarian position which sees the whole world as a big warehouse created for man's usage and consumption. The Cartesian dualism with its "rejoicement in the self-sufficient power of reason"⁵⁸ radically separates man from the rest of nature.

I tell this story because it is part of a powerful heritage shaping Western civilization as a whole in all its facets. Moreover, it has been exported to the rest of the world through globalization (since the 16th century) and thus really has become the dominant global world view. It must not be forgotten, that science and technology have greatly improved our quality and quantity of life and they continue to do so. Even if the benefits are most unequally distributed, statistics show that life has become better for a large

⁵⁶ Thomas Aquinas, *Summa theologiae* I-II, qq. 93-104.

⁵⁷ This is masterfully described in Charles Taylor, *A Secular Age*, chapters 6 and 7.

⁵⁸ Charles Taylor, *A Secular Age*, 9.

number of people in the last centuries.⁵⁹ It has, however, also led us into the predicament of the sorcerer's apprentice: we do not know how to stop the dynamics we unleashed and say "enough" when they become detrimental and destructive for life on earth.

The story of scientific reason, however, is not the only narrative of the West: It is and always has been accompanied by strong counter-tales. Thus Romanticism as a "movement of wholeness" was powerful in 19th century Germany (as in England). It propagated the return to and indeed a re-enchantment of nature rejecting dry rationalism and calculative utilitarianism. Friedrich Schiller, the great German poet, laments the dead mechanism of a nature no longer inhabited by spirits and gods and holds biblical monotheism responsible for emptying the world of its divine presence.⁶⁰ His position is not too different from the one of today's esoteric movements.

The Romantics' lament over the loss of oneness with nature former generations enjoyed is understandable, even if the picture they paint is too idyllic by far. Moreover, it is fairly obvious, that a belief in a world populated by spirits and gods, e.g. a neo-paganism, will not be embraced by many people, and it is no option for Christians. Moreover, it may lead to an escape from responsibility rather than strengthen it. The atomic bomb is there, whether we like it or not, and the belief in Celtic dryads or in Baal⁶¹ cannot help us to deal with this frightening fact, which requires rather more and not less cautiousness, prudence and ethical responsibility. Romanticism and, in its wake, modern spiritual nature movements (as New Age) do show

59 The main indicator for this is average life expectancy which encapsulates the quantitative living standards (nutrition, housing and health). It has risen in the industrialised countries from approx. 35 to around 78 years, thus more than doubling since the middle of 19th century. An increase has also taken place on a global scaled, although the average life expectancy in some regions (Sub-Saharan Africa, Eastern Europe) is decreasing due to new epidemics. This, among other things, has made technological progress very attractive. Studies show, however, that the optimum in life quality may have been reached in the West in the 1970s. From then on actual well-being decreased despite economic growth because of the negative side effects of technical innovations. If this is the case, it is shocking because it means that growth and destruction of natural resources did no longer contribute to the welfare of those who caused this destruction. Similar developments can be observed today in China where the high growth rates are accompanied by grave side effects on the natural environment and thus do not lead to real improvements for those who benefit from them.

60 Cf. for example, Friedrich Schiller's famous poem: *Die Götter Griechenlands*.

61 As did, for instance, the German poet Bertold Brecht in his earlier works.

that instrumental reason alone is deficient and that there is more to life than reason. However, they do not show us a way out of our problems and teach us ways and means to harness the powerful forces of science which have been unleashed by technical rationality.

There is another set of ideas prominent today the aim of which is to overcome the subject-object dichotomy that is evolutionism. By seeing man as an animal among others and thus as an integral part of nature, the evolutionist option makes, so to speak, a virtue of necessity. Humans and human reason are regarded as merely instrumental for fulfilling the aim of evolution. They participate in an upward movement of the race through built-in biological mechanisms. It is no longer man who gives orientation to the process, but s/he is its object. Evolutionism thus necessarily forfeits the notion of man as being created in the image of God. It may, moreover, easily degenerate into a celebration of a race of the human species, won by the fittest. Even if it is not conceived as a form of social Darwinism, a world view for which the upward movement of the human race is the highest aim guaranteed by biological laws undermines human responsibility and ethical reason. Human decisions and free will become ephemeral. It thus constitutes an anti-thesis to Christian as well as secular humanism, since it prevents us from even acknowledging the predicament we are in and from using the resources we have to overcome it. Often this evolutionist world view merges with a Nietzschean approach, for which the will to power is the ultimate value. The *Übermensch* then becomes the expected end result of evolutionists' dreams. In both models the fascination with domination acquires a halo and becomes a positive force in the eternal progress of life.

Thus, a look at the present world and secular thought presents us with an ambivalent picture. On the one hand we are confronted with the modern paradigm, which regards man as a rational agent and natural environment as a mere object. On the other hand there exist manifold Romantic counter-movements which contest and try to overcome the subject-object divide by promoting the re-enchantment of the world. The third current of thought of relevance is evolutionist positions which see man as (a) being that plays his/her role contributing to the guaranteed upward development of nature. The attraction of both of these models may well be explained by the fact that we

have indeed found ways out of the one-sided modern technological instrumental and utilitarian world view, found answers to the burning ecological questions and new visions for the future. However, they have to be modelled in such a way as to be compatible with Christian anthropology and ethics. The main question therefore is how to map out a Christian position which neither falls into the trap of Romantic pan(en)theism nor evolutionism, but also overcomes the modern subject-object dichotomy. This is a huge question indeed and it would be utterly presumptuous to try to answer it. What I can and want to do in the last part of this paper is to hint at some of the ethical and spiritual elements which I consider to be essential on this path.

3. Ethical Action and Spirituality as Counterweights

In his classic *The Imperative of Responsibility: In Search of an Ethics for the Technological Civilization*⁶², the philosopher Hans Jonas starts out by describing the paradigmatic shift which has occurred during the second half of the 20th century, leading to a situation unparalleled in human history. Instead of man being threatened by an overpowering nature, she has become a peril for nature itself; being able to damage and destroy it - and with it, his/her own life basis. Nature has thus become the potential victim of man's capacity to dominate, transform and manipulate it. This unprecedented growth in human power over nature also raises human responsibility to a hitherto unknown height and requires a new ethical paradigm altogether. Jonas describes the "altered nature of human action" in the following way:

"The once and for all unleashed Prometheus, to which science has given powers never known before and economics has given an unrelenting impetus, calls for an ethic which voluntarily puts reins on this power and deters it, so that it does not harm man. That the promise of modern technology has turned into a threat, or that the two are inextricably linked, is the starting thesis of this book."⁶³

From there Jonas goes on to develop ethical criteria, which are congruent with this situation of the world. Firstly we need an imperative of re-

62 Published in Chicago by the University of Chicago Press (1984), it continues to be one of the most powerful and convincing models of ecological ethics, cited in its German version, Hans Jonas, *Prinzip Verantwortung*, Frankfurt 1984.

63 Hans Jonas, *Prinzip Verantwortung*, 7.

sponsibility (analogous to the Categorical Imperative of Kant) which includes our duty to preserve the natural basis of human life now and in the future:

"Do act thus, that the consequences of your action are compatible with the permanence of true human life on earth." ...or "do not endanger the possibilities of an indefinite existence of mankind on earth."⁶⁴

The first and primary aim of our ethics is to sustain "true human life on earth". To achieve this Jonas introduces what he calls the "heuristics of fear" as a new ethical rule. This basically entails that considering the magnitude of possible destruction and the danger to vital life goods, we have to use our imagination to develop worst case scenarios. If according to these the scientific research envisaged might do greater harm than good, it is not ethically acceptable. Mere improvements of life (the full bath tub of the sorcerer's apprentice) neither justify grave risks for nature and man nor the research on inventions, the side effects of which we neither are able to foresee nor to control. So as to put these criteria into practice in the laboratories of scientific research and its applications in the economy, the sense of responsibility of all human actors has to be strengthened in every possible way; this constituting the pre-condition of legal measures (to which, however, Jonas does not pay much attention). There is no guarantee that we will succeed in harnessing scientific progress, so that it can again be life-furthering and not destructive, but considering the magnitude of the possible damage, we have to do our utmost to reach this aim. Jonas himself doubts whether this can be accomplished through ethics alone, the more since ethical rationality itself has been eroded by the success of technical rationality dominant in Western culture. Because of this,

"[t]he question arises whether we can, without the reestablishment of the category of the sacred, which has been thoroughly destroyed by scientific enlightenment, have an ethic which is able to harness the extreme powers we have acquired and which we are nearly forced to increase today."⁶⁵

64 Hans Jonas, *Prinzip Verantwortung*, 36.

65 Hans Jonas, *Prinzip Verantwortung*, 57.

The "reestablishment of the category of the sacred" means the inner realization of the world as being created and thus to be regarded with awe. Humans are thus responsible before God as its creator. A world view which excludes this dimension of transcendence, makes it difficult if not impossible for Jonas to relate to nature in a way that neither treats it as a mere object nor makes it an all engulfing reality (material or divine), of which man is an undistinguished part. The reduction of the triangular relationship between God, man and nature, whereby the latter are both created by God, to a bipolar system of man and nature either leads to the subject-object divide (reason or spirit versus matter) or it tends to merge man and nature into one. Man is then either *all* nature – or opposes nature through reason standing outside of nature. An immanent world view makes it more difficult to cultivate the spiritual and ethical attitudes needed to relate to nature as a reality with its own worth and dignity.

Ethics grounded in spirituality are based on the belief that man is not the highest and only being and therefore not responsible towards anybody else. In the following I want to name three attitudes which seem of particular importance to counterbalance the present trends:

Humility against hubris: Modernity is in a strange way blind to the dilemmas it creates. One of the reasons for this is a stern belief in progress (a kind of secularized eschatology) which is deeply ingrained in modern self-understanding. Hand in hand with this goes a sense of superiority. Everything that was thought and done prior to our time, e.g. that is pre-modern, is by definition considered to be inferior. The main source for this feeling of superiority is the immense power to harness the forces of nature and dominate them as acquired through technical progress. Man has so become convinced of his capacities as a *homo faber* that s/he tends to lose sight of the dark sides of this process of modernity. The belief (though unfounded) that the world is permanently improving, going from better to best, can be a source of strength, but it also prevents us from facing up to the negative consequences of technological inventions. This tendency to overlook the destructive side effects of modern life styles is boosted by the overly optimistic belief that new and even better inventions will help us to overcome the damage done to nature. This attitude, in the long run, comes to resemble that of a gambler in a casino who is ready to take ever higher risks to

win the game. This is why Jonas, as cited before, wants to break the spiral of risk taking.

The sober and realistic Christian belief that man is torn between good and evil may be a powerful counterweight to this type of one-sided optimism and self-assuredness of modernity. Man (and of course woman) is not as innocent as modern anthropology thinks them to be. He may give in to his disposition to do the bad – and thus harm others and him/herself. The Christian moral tradition has called this dark side of human nature *hubris* or in Latin *superbia*. It is the human temptation par excellence to transgress limits and ultimately want to become godlike, the master over life and death (Gen 3:5). The last and most powerful temptation of Jesus was to adore Satan so as to receive from him the power over all the empires of the earth (Mt 4: 8 par). For the evangelist this must have been a real and not merely a make believe temptation – and so it is for his disciples and humans in general. Power has a bewitching fascination to it. Through overuse it has become difficult to talk of sin even in Christian theology. To recognize that evil exists is the precondition of *metanoia*, the radical change in thinking and action required. It is needed most urgently so as to overcome the disastrous effects of past mistakes – ecologically and socially, the ecological crisis affecting mainly the poor. However, we all have become enslaved by economic and technical structures which make it difficult for each of us to do justice to others and to nature. On a global scale, we are all part of a world system that enmeshes us into the evils of our time and thus makes us morally and metaphysically guilty.⁶⁶ These "structures of sin" (a term first used in liberation theology, but now also in Catholic teaching) are the result of past false actions – and can only be changed through new structures which are based on right insight as well as action of individual actors. In a globalized world we are all sitting in one boat. This boat is the earth – our home in the universe. The destruction already done is immense and grow-

66 Karl Jaspers, *Die Schuldfrage von der politischen Haftung Deutschlands*, München: Piper, 2nd ed., 1996, distinguishes between criminal, moral, political and metaphysical guilt. The criminal guilt is about the transgression of existing law; moral guilt is when it does not transgress laws but is acting in a way that is damaging to others and nature; political guilt is concerned with the actions of politicians but also normal citizens in a democracy, who would be able to influence politics, but do not live up to their better knowledge and responsibility. Metaphysical guilt stems from the fact that as humans we all participate indirectly and subtly in all acts of humans (good and bad).

ing populations in non-Western countries want their share in technological and material progress. It is not surprising that - like the sorcerer's apprentice - there is panicking.

Humility is an attitude which helps us to face up to reality as it is and slowly but effectively change it. It makes us recognize our earthliness (humility derives from *humus* earth in Latin) with all its limitations - which includes those of natural resources.⁶⁷ One may, by the way, well become pensive over the fact that this attitude seems to be better developed in non-Western, such as Asian societies than in our own - though the export of egocentric Western life-styles is changing traditions there, too. The questions which humility should make us ask persistently and concretely (are): What is it that we need for a good and fulfilled life? Which demands have to be reduced to make room for others?

Trust in grace against the attitude of the homo faber: The word grace constitutes a kind of archaism in our language and has become something of an odd category even for Christians and theology. To speak of it in a secularized world tends to sound artificial and seems to suggest an expression of sheer helplessness. This exclusion of grace from our world view as a result of secularization does, however, have consequences which may be graver than we think. Man thus is the only actor on the stage. H/she may not hope for any help out of the dilemmas he created. Of course, there is no *deus ex machina*, no master that comes into the scene and says a saving word. However, 'man's trust' in God or grace is a potent motivation not to succumb to the temptation of resignation, an *après nous le déluge* attitude. This carelessness for others and future generations seems, however, to be the most frightening aspect of our present time. We need motivation to work for improvements, to use our knowledge, engagement and wisdom to change our direction and thinking (*metanoia*).

The opposite of trust in grace is an apocalyptic world-view which, frighteningly enough, is gaining ground these days. The belief that the world will come to an end with a big bang - and even worse, that believers have the right and duty to hasten this through active violence, e.g. by military means,

67 It obviously has nothing to do with a false meekness which is its caricature.

is unfortunately not held by only a crazy minority.⁶⁸ These millenarist beliefs are fairly common among evangelical Christians and also Shiite Muslims. It represents a highly dangerous amalgam of an unquestioned faith in the modern *homo faber* and religious fanaticism. In stark contrast, the trust in grace recognizes that we have gone astray, that our lifestyle and culture are non-sustainable and therefore unjust and that we have to do everything possible to minimize the negative effects of it.

The belief in grace present in creation can help us to develop a new attitude towards nature, seeing it as creation with intrinsic value. Only when our whole person has been formed by this belief will we be able to look at nature with new eyes. The Psalms give wonderful examples for this in poetic language. In them, nature comes to life in its own right and is praised for announcing its creator. The same spiritual perception of nature can be found in the writings of mystics like Angelus Silesius (1624-1677)⁶⁹ and much earlier St. Francis of Assisi (a contemporary of the above mentioned Roger Bacon!). His awe of nature and his joy about its beauty - as his song of the sun shows - go hand in hand with his praise of God as its creator. Nature for him becomes a symbol for God's presence and a gift of God's goodness and grace - though still in need of redemption (because it is also a pitiless struggle between creatures).

Gratitude against greed: Gratitude may well be regarded as the central Christian virtue. It is opposite to an attitude which strives to have more at all costs. Greek philosophy called this vice *pleonexia*, a way of life and thinking dominated by desire and greed which necessarily destroys inner and outer peace. It is noteworthy that Western liberal economic thinking, contrary to all other cultures and world views in history, made human acquisitiveness a virtue - instead of seeing it as a vice. This has to do with its view of human nature as essentially limitless. Gratitude enables us to accept without resentment that we are limited creatures embedded in nature.

68 Cf. Geiko Müller-Fahrenholz, *America's Battle for God: A European Christian Looks at Civil Religion*, Grand Rapids: Wm. B. Eerdmans Publishing, Co., 2007.

69 Cf. Das Gräslein ist ein Buch/suchst du es aufzuschliessen/du kannst die Schöpfung draus und alle Weisheit wissen (the little grasses are a book; if you try to understand it, you know from it all creation and all wisdom): Angelus Silesius, *Der cherubinische Wandersmann*, Zürich: Diogenes 1979, 17 (translation IG).

We are created in the image of God, but not separated from the rest of creation. We are rather to bring creation in contact with God and his redemptive powers through the praise they inspire in us (Rom 8:22). This way we discover the sacramental character of nature, which is more than a heap of material or energy to fulfil our needs, and more than a machine created by a far-off designer. This creation spirituality however respects and maintains that there is a difference between the creation and its creator, between man and nature. A Trinitarian theology and spirituality may help us to better understand this. It encompasses the awe of creation, created by the Father, its redemption by the Son and its being filled by the Spirit. Eucharistic spirituality can bring this into the sphere of liturgy and prayer. A most impressive example for this is a text the French Jesuit and palaeontologist, Pierre Teilhard de Chardin, wrote in the Chinese steps. In *La Messe sur le Monde* he sees the Eucharist as an offering of the whole world coming from God, given again to God so that he may transform it, and become the goodness of creation a final reality.

From this distinctive approach of Christian faith many bridges can be built to other creeds and world-views. These can then serve as the basis for common action. I cannot go into this here, but other religions and world views can also assist us in our search for a new attitude towards nature, which transcends the strict subject-object divide of Western science and culture.

So as to overcome the popular utilitarian understanding of nature, a profound change of attitudes and behaviour, a *metanoia*, of many human beings, is indispensable; however,) this alone is not enough. We need just as much legal regulations and specialized institutions to make our use of natural resources more sustainable. Such legislation constitutes a priority so as to reduce the damage inflicted on nature now and in the future, and to protect the world's poor, who are most vulnerable to the effects of environmental destruction. This is also indicated by the title of this conference, *Peace on Earth and Peace with the Earth*, which links the peace with our fellow-human beings and peace with the earth. Peace and justice are indeed inseparable.

This requirement of intra-generational as well as inter-generational justice should be borne in mind in all debates on sustainability as well as the vital

role sustainability has for social and economic development. Social and ecological justice cannot be separated and very often they require similar measures. The crux of the matter is, however, that the quantity of natural resources used by the wealthy industrialized nations by far exceeds the level of use that is feasible for a population of more than six billion people worldwide. In order to enable these to develop economically and get their share, the use of resources in rich countries must be reduced rather than stepped up. This however means that we have to find economic models oriented toward qualitative rather than quantitative growth. Those that protect the resources of the earth make them available also to future generations and allow for more social justice in their distribution. This means we have to give up a highly ideological growth myth, which continues to be dominant among political and economic decision makers and which economic journals continue to trumpet.

Some of the suggestions which are presently on the table to make our economies more geared towards sustainability are just to be briefly mentioned: The introduction of an ecological national product, which monetizes the use of ecologically scarce resources as well as the damage done to nature, and thus paints a more realistic picture of the real growth of well-being achieved. Another priority should be high taxes on energy consumption to reduce the use of non renewable fossil fuels. The continuous rise in oil consumption is a flagrant violation of the sustainability principle, since the supplies of oil are limited and its combustion is responsible for the emissions which cause global warming with all its frightening side effects. Moreover, an energy tax would reduce the industrial consumption of materials and the intensity of cargo transport, thereby contributing to the preservation of regional economic and manufacturing zones. The promotion of environmentally-friendly production methods and energy-saving technologies through a variety of legal measures could also be helpful in preserving the environment.

Above all, however, sustainability calls for a change in the lifestyles of the wealthy in the industrialized nations and worldwide. Religions - and especially Christianity - can contribute to this through their positive view of asceticism as the foundation of inner freedom and solidarity. Christians should be motivated to deal with nature differently, knowing that material

goods play only a limited role in human happiness that they can enslave people, and that nature is God's creation and a reflection of his glory.

My favourite biblical story in this context is that of Abraham pleading before God for the salvation of the city of Sodom and Gomorra (Gen 19:16-33). It shows compassion, trust and a strong link between prayer and action, but more than that, it demonstrates that the good has a disproportionately strong effect. Abraham manages to bargain God down from fifty to ten just persons. If they can be found in the city, it will be spared from destruction. This shows that quantity is not everything. The exercise of justice may counterbalance the negative, thus giving and preserving hope.

The subtitle of our meeting is: Serving the Goodness of God's Creation. This indicates that though the goodness and peace we strive for are already present, we are called to use all our faculties to promote it. Now when I am writing this, there is a severe economic and financial crisis which may be a chance for a profound change in attitudes. However, it may also lead to an affirmation of a growth model that disregards the ecological question altogether. I think the situation is as serious today as it was in the early 1980's when nuclear war seemed a real possibility. At that time the Quakers and other small churches brought up the idea of a Peace Council, which was then adopted by the Sixth Assembly of the World Council of Churches in 1983 and which led to the conciliar process on justice, peace, and the integrity of the creation. Now is the time to find the ways and means to call on Christians to take a clear stand and speak out with a loud and prophetic voice against ecological degradation in a way similar to that of twenty years ago.

Science and Technology – Sources of Violence against the Earth A Theological Perspective

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The 10th of September 2008 was a day of anticipation for the majority of the scientific community worldwide, as the Large Hardon Collider of the CERN Institute, the greatest experimental machine of particle physics ever constructed, was forcing its engines to the experiment of the centuries, the recreation of the big bang, reaching back almost to the point zero of the creation of the universe. Scientists, who have been working for more than 20 years on this project, hope that a broad avenue of information concerning our origin will be opened up and the chain of creation will be unfolded before their eyes. Additionally the construction of accelerators of such a kind is expected to be used in the healing of certain types of cancer leading scientific medical research into new fields of knowledge, as well as computer science into new areas of development. On the other hand, despite the safety guarantee, members of the scientific community were profoundly anxious and alarmed about the possible consequences of such an experiment. They feared that not only the possibility of the creation of black holes during the whole procedure, but also the danger of the emergence of new forms of matter such as strangelets, which might thus far be uncontrolled and uncontrollable by human knowledge.

It is true that societies which find themselves confronted with such unbelievable scientific achievements often react with astonishment or mutually invalidating suggestions. There are many who argue that research and science cannot have barriers, while others consider the establishment of some legal or moral framework to be absolutely necessary, because, they argue, if the need for control on scientific experiments or medical research is not

IN MEMORY OF

LUKAS VISCHER

(November 25, 1926 – March 11, 2008)

Mentor – Colleague – Friend

**“Unser Herz meint nit anders, es sey eitel Nein da,
und ist doch nicht wahr.**

**Darum muss es sich von solchem Fühlen kehren
und das tiefe heimliche Ja unter und über dem Nein
mit festem Glauben auf Gottes Wort
fassen und halten.”
(Martin Luther)**

(Our heart tells us there’s nothing but a big NO, yet that is not true.
Therefore it must turn away from such thoughts and lay hold on the
deep, secret YES which is there behind and beyond the NO,
by a sure faith in the Word of God.”)

As a student Lukas put this word of Martin Luther in a small gilded
frame and placed it on his writing desk.
He kept it before his eyes till the day of his death.

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Preface

by Cyril Ritchie,

President of the John Knox International Reformed Center.

This volume is above all a tribute to the life and work of Lukas Vischer, eminent theologian and thinker, but also eminent leader and doer. His memory and accomplishments are cherished.

As President of the John Knox Center I served 11 years with Lukas who filled the role of Chair of the Center's Program Commission. And how he filled it!

Lukas was constantly thinking and planning ahead. He conceived and organized a very considerable number of conferences and colloquia on theology-related themes, with a particular focus in his later years on ecological concerns.

Lukas also edited an entire set of publications in the "John Knox Series", and he was a prolific author in several domains.

He was also the inspirer of the worldwide "Mission in Unity" Project that the John Knox Center ran for six years jointly with World Alliance of Reformed Churches (WARC) and which is today carried forward in an adapted form as the WARC Mission Project.

In the year before his death in March 2008, Lukas devoted much time to advance thinking about preparation for the consultation that was in due course held at the John Knox Center, six months after his death, under the title "Peace on Earth and Peace with the Earth". He would dearly have wished to see the planning through to the conclusion, but a malignant illness took him from us.

The John Knox Center had not the slightest doubt that the Peace on Earth Consultation should go ahead, to bring to fruition the ideas and concerns of Lukas. I therefore cannot sufficiently express appreciation to Lukas' dear

