DIVERSITY OF CULTURAL NORMS
RELATING TO WAR AND THE
ENVIRONMENT:
The Major Civilizations

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#### Introduction

In autumn 1986, a unique alliance was forged between conservation and five of the world's great religions. Below are some key quotes/from their declarations:

Our ancestor Abraham inherited his passion for nature from Adam. The later rabbis never forgot it. Some twenty centuries ago they told the story of two men who were out on the water in a rowboat. Suddenly, one of them started to saw under his feet. He maintained that it was his right to do whatever he wished with the place which belonged to him. The other answered him that they were in the rowboat together; the hole that he was making would sink both of them. (Vayikra Rabbah; 4:6)

# Christian Declaration on Nature:

...man's dominion cannot be understood as licence to abuse, spoil, squander or destroy what God has made to manifest his glory. That dominion cannot be anything else than a stewardship in symbiosis with all creatures....

Every human act of irresponsibility towards creatures is an abomination. According to its gravity, it is an offence against that divine wisdom which sustains and gives purpose to the interdependent harmony of the universe.

# The Muslim Declaration on Nature:

The word "Islam" has the dual meaning of sub-mission and peace.

For the Muslim, mankind's role on earth is that of a khalifa, vice-regent or trustees of God. We are God's stewards and agents on earth. We are not masters of this earth; it does not belong to us to do with it what we wish.

Unity, trusteeship and accountability, that is tawheed, khalifa and akhrah, the three central concepts of Islam, are also the pillars of the environmental ethics of Islam. They constitute the basic values taught by the Qur'an. It is these values which led Muhamad, the Prophet of Islam, to say: "Whoever plants a tree and diligently looks after it until it matures and bears fruit is rewarded," and "the world is green and beautiful and God has appointed you his stewards over it."

## Hindu Declaration on Nature:

This leads necessarily to a reverence for animal life. The Yajurveda lays down that "no person should kill animals helpful to all. Rather, by serving them, one should attain happiness". (Yajurveda 13.47)

...the natural environment also received the close attention of the ancient Hindu scriptures. Forests and groves were considered sacred, and flowering trees received special reverence. The Mahabharata says that "even if there is only one tree full of flowers and fruits in a village, that place becomes worthy ofworship and respect...".

### Budd hist Declaration on Nature:

The simple underlying reason why beings other than humans need to be taken into account is that like human beings they too are sensitive to happiness and suffering: they too, just like the human species, primarily seek happiness and shun suffering.

Presumably the representatives of these religions have done their very best to find good backing for a conservationist stand in their basic texts and ways of approaching reality. The texts are interesting as an introduction because they show an Occident-Orient axis, and in favor of the latter from a Thus, only the Buddhist deconservationist point of view. claration talks about "beings other than humans" as something like us, in being "sensitive to happiness and suffering. the Jewish declaration there is actually no reference to nature at all, only to the finite earth argument which is the basic premise in a more rational, scientific approach. In the Christian and Muslim declarations there is the idea of the good steward as a part of God's order - but clearly with Man above Nature, not on an equal footing with nature. And the Hindu declaration is somewhere in the middle between the three occidental and the Buddhist

With this as an introduction to the problématique, let us try to set this issue in a broader context.

### 1. The impact of civilization on the environment

How does Man relate to Nature? And is there anything in this relation that can be built upon to protect Nature from Man's tremendous destructiveness in war, but als in peace--peace among nations certainly not meaning peace with Nature. And yet, there must also have been something staying man's destructive hand, otherwise even more would have been destroyed. The environmental basis for human existence would have deteriorated even further, even to the point of extinction of human settlements, and not only in some areas but all over the world.

The quotations given above give us one key: religion. A broader concept would be <u>cultural norms</u>, rules of dos and don'ts in the culture. They may be rules expressed and to be respected regardless of the consequences, or they may be rules to be respected precisely because of the consequences. Among the former are the ethical/moral commandments rooted in <u>religion</u>, among the latter the more pragmatic/rational rules rooted in science.

Man acts on Nature, Nature acts on Man--there is an actioreactio relation both ways. But that does not mean that the relation
is interactive from man's point of view. For that to happen nature
has to be seen as an actor, capable of formulating goals and even
strategies for achieving them in the relationship to man. So one
basic distinction comes right at this point: to what extent is nature
seen as animate in the sense of having anima, soul; to what extent is
nature seen as inanimate, as being soulless, even desouled, "entgöttert";
to be acted upon rather than acted with.

But in acting upon nature we nevertheless interact—with fellow human beings. More nature for us may mean less nature for others.

And what about these others, do they have soul? Do they have moral standing, even legal standing? Or — are they also "to be acted upon"?

Since religion is the institution, in the sociological sense of that word, that defines the distribution of soul in the universe the answer to these questions would obviously have to be that it depends on which religion, what parts of nature. Some typologies are needed and the typologies introduced here are simple, hardly controversial.

The point of departure will not be religion but a much broader concept, civilization, and more particularly the code, or cosmology, of civilizations where religions certainly play a rather major role. More particularly, mention will be made of seven civilizations or civilization categories:

- 1. Occidental civilization in expansion: (Greco-Roman period) or the Greco-Roman Judaism-Christianity-Islam, hard version
- 2. Occidental civilization in contraction (Medieval period) or Judaism-Christianity-Islam, soft version
- 3. Hindu civilization
- 4. Buddhist civilization
- 5. Chinese civilization
  -Daoism
  -Confucianism
  -Buddhism
- Japanese civilization
   Shintoism
   Confucianism
   Buddhism
- 7. <u>Indigenous civilizations</u>

As will be seen no distinction is made between civilizations and other cultures, or macro-cultures, since any such distinction carries a connotation of "higher" (for civilizations) and "lower" (for other cultures). As is very clear, particularly in the context of relation-

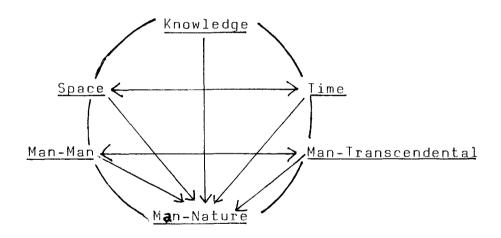
ship to the environment, what often is referred to as "civilization" seems to be defined in terms of its ability to destroy nature,
particularly forests. On the other hand only passing remarks will
be made in connection with category number seven above, and mainly
for contrast with numbers one to six. There is too much diversity
hidden in that category.

With regard to <u>nature</u> the typology is also fairly uncontroversial:

- 1. Biosphere
  -Animals (higher, lower)
  -Plants (higher, lower)
  -Micro-organisms
- 2. <u>Lithosphere</u>
- 3. Hydrosphere
- 4. Atmosphere
- 5. <u>Cosmosphere</u> (outer space, the rest of the universe)
  No finer distinctions are needed, nor meaningful in the context of
  this discussion. Moreover, the precise borderline between "higher"
  and "lower" does not have to be drawn as we are dealing with normative culture, and more particularly with religions, not with zoology,
  botany, ecology with many exercises in sub-classifications.

Given these two typologies the basic stance taken by the religious component of major civilizations can be mapped out, with many question marks, as will be done in the next section. However, there is much more to be said in this more preliminary stage of the exploration.

FIGURE 1. Six aspects of a civilization



Mostly, man-transcendental relation has to do with what was referred to as religion above (but is broader than man-God, as this presupposes monotheism which is only one type of religious exper-

ience). Similarly, "knowledge" corresponds to what was referred to as "science" above. And "man-man" has to do with human relations in general, and is a very broad category encompassing how man relates to himself, to other individual human beings, to society, and how society is structured, including how societies relate to each other.

But what about space and time? They are basic, and will here only be discussed in terms of one simple variable: <u>unbounded versus</u>

<u>bounded</u>. One characteristic of occidental civilization "in expansion", the first civilization on the list above, is expansion in space. <u>Space is seen as unbounded</u>. The only limit would be what is technically non-feasible. In Christianity there is a clear religious basis for this, in the Gospel according to Saint Matthew 28:18-20--the missionary command. No limits are set in space; evangelization knows no such limits.

On the other hand, <u>time is seen as bounded</u>. There is a Beginning, and an End--history is suspended between Creation and Destruction, the latter referred to as Armageddon. Between the first book and the last book of the Bible, Genesis and a Revelation, in other words.

How would a civilization conceiving of itself as unfolding in unbounded space, but under the constraints of bounded time, behave? There is a limited time available to do what spould be done; on the other hand, space is unlimited. Without saying that

the consequence necessarily will be destructive of nature this combination is at least compatible with a certain recklessness. In preparing for the ultimate Judgment there is much to be done; if it does not work out here, then perhaps there, but it has to be done before the end of time.

Compare this to the opposite configuration; a civilization unfolding in bounded space, but with unbounded time. If space is limited, householding, in other words ecology, becomes a necessity. The consequences of bad ecological behavior are visited upon us immediately or at least quickly; they cannot be displaced somewhere else in space. Now, if in addition time had also been limited the conclusion drawn might have been that the bad consequences do not matter much; it is all over very soon anyhow. But if time is unlimited and we have to continue within limited space then care rather than recklessness would be the logical conclusion. And in this category I would tend to place Buddhist, perhaps also Hindu civilization, as the other extreme.

Occidental civilization in contraction, lived within bounded space like medieval social systems (in fact, very bounded in the manorial period, somewhat less so in the feudal period) but combined with bounded time. End was near to medieval man. Biblical prophecies were written on the wall everywhere. And this was certainly compatible with the ecological recklessness that ultimately is held by many to have brought medieval social formations to an end.

The fourth category, unbounded space combined with unbounded time seems to be the formula under which Japanese civilization is currently unfolding, possibly to be followed by Chinese civilization. Their philosophies do not include an upper limit in time although shintoism embodies the concept of creation. With that amount of space in which to displace the consequences, and that amount of time in which to repair possible damage, why should extreme care be exercised?

Indigenous civilizations being so diverse when it comes to the conceptualization of space and time that no reasonable hypothesis can be formulated, the following table might be offered as one preliminary quide:

TABLE 1. Space, time and nature: The major civilizations

TIME

	Bounded	<u>Unbo un de d</u>			
	Occidental civilization	Japanese civilization			
Unbounded	in expansion RECKLESS	Chinese civilization (?) RECKLESS			
	Occidental civilization	Hindu civilization (?)			
Bounded	in contraction RECKLESS	Buddhist civilization CAREFUL			

It should be noted that in order to arrive at this conclusion the operation of three aspects of a civilization had to be taken into account at the same time: space, time, and religion. Doing so the conclusion is relatively clear: only when space is limited but time is not is the sufficient motivation within these categories to stimulate careful householding with nature. In the other three, although for different reasons, a certain amount of recklessness can be postulated as an hypothesis. And we are left with a certain occident-orient gradient in favor of the latter. But not unambiguously so: the Japanese civilization is seen as less careful, and there is at least a question mark in connection with Chinese civilization.

Let us then move on to man-man relations. This opens for practically speaking everything social sciences have to offer, so some judicious selection among the many classifications available has to be exercised.

Let us use as another way of looking at civilization the (assumed) transition in Western civilization sometimes in the middle of this millennium (1400-1600; 1250-1750?) from medieval/traditional to modern. Let us further cut through an enormous literature and just postulate, for the sake of the present argument, that modernization was based on, and indeed developed further, three aspects of modern society: state, capital and science; bureaucracy, corporation and university; bureaucrats, capitalists and intellectuals. Centralized control of people, centralized control of production factors and centralized production of rationality. Of course, centralized control was not that new. China had been a unified and centralized state already from -221 when Europe started with that formation in France and Turkey (later to become the Ottoman Empire). There had been important forerunners both in the Middle East, in pre-Hispanic America and Africa.

But in Europe these three pillars took shape together, in the process that Norbert Elias refers to as "civilizing". [9] A part of that process has to with the relation to the Other. Elias sees this essentially in terms of warfare. Whereas in the Middle Ages killing seems to have been partly enjoyable modernity prescribed killing in cold blood, passionless, "sachlich". Executions were public and cruel and emotions were by no means banned, whether out of compassion or hatred.

Three helpful factors for the killer would be

professional training, killing at a distance with long range weapons, and in the name of someone/something above oneself. And thus it is that we tend to be less shocked by mass scale killing using bombs and missiles than by direct fighting, hand to hand, fueled by passion, even hatred.

Relative to nature one implication is clear: killing of animals, even massive butchery, may be permitted provided the butcher does not display any sign of joy at doing so and acts both professionally and dispassionately. A nice child is not supposed to derive any pleasure from tearing off one leg after the other of a fly; his mother can expose hundreds, thousands of them to death in dispassionate chemical warfare referred to as spraying. Bullfighting is symbolic of man's (not woman's) supremacy over the wild, dark forces of nature; but the killing is supposed to be highly professional, cool.

With such attitudes, deeply ingrained in us, defining our relation to homosphere and biosphere, it is probably only to be expected that relations to litho-, hydro-, atmo- and cosmo-sphere (outer space) would also be highly destructive. The condition would be that the destruction is not wanton but in the name of something. and that it is done professionally, scientifically. This is where the interplay between the three pillars of modernity enters fully, with state and capital providing the goals, the "name", and rationality the means. Theology, law and education could be used to sort people in true believers, law-abiders and well trained on the

one hand and the other categories on the other, with little hope for those fully negating these virtues. Throughout the middle of this millennium we can sense how, slowly and steadily, the criteria became more and more "objective", meaning "inter-subjective", meaning reflecting the shared prejudices of an entire civilization. Natural science does the same for nature, informing us what can be transformed in to what and what can be substituted for what. For the direct relation to a particular object, a person, a precious stone, is substituted a general relation to a universal category: people with a high school diploma, diamond as pure carbon.

Thus, destruction, including ecological degradation, is a logical concomitant of modernization.

Fggs:

had to be crushed to build strong states and strong corporations. But, why did the concept of rationality not include notions of ecological balance from the very beginning. The conventional answer would be that this was also the age of ending discovery. Nature might well be spherical and finite, yet the resources appeared to be infinite. A less conventional answer might be that any act of destruction of nature was an act of punishment, an enactment of the superiority of the besouled over the desouledy like punishing the sinner, the criminal, the person incapable of being adequately educated, not to mention the enemy. Modernity carried no compassion with the lower "spheres" and the lower species in the manconstructed evolutionary chart.

And that leades us with man-transcendental relations and knowledge; the subjects of the next two sections.

### 2. The religious orientation to nature

Basic to this orientation is the sacred/profane distinction, and the distribution of sacredness over nature. To simplify I shall assume the distribution of soul over nature to lead to the same kind of conclusions. But these conclusions are far from unambiguous. Whereas the secular or profane, that which is not of God or sacred, does not have soul and may be destroyed it does not follow that what is sacred may not be destroyed. There could be two types of sacredness, or even more. Man might like to ingest the sacred in order to partake of its nature--thus, in Christianity certain types of bread are ingested during Mass, and not because that bread is profane. Moreover, it is unclear where evil nature is located. It is not secular, yet not sacred in a positive sense. That type of nature may inspire even more awe than the abodes of the divine, and so much so that they are saved rather than destroyed lest evil forces be activated. Thus, Man tends to respect volcanoes precisely because they are "evil", but not forests as abodes of pagan spirits.

The basic point is that nature is not morally neutral, that there are peaks and troughs of moral relevance all over nature, in all spheres. There may be sacred animals and plants, but also mountains, certain geological formations, not to mention phenomena located in the hydrosphere (waterfalls), atmosphere (storms) and, indeed, cosmosphere (the sun and the moon, planetary constellations). The possibilities are unlimited, given the incredible variety in nature.

But underlying all of this is the assumption that there is soul, anima, to distribute. Religions classified under the headings of animatism/animism/pantheism are unproblematic. By definition there is that of soul everywhere, hardly ever in a uniform distribution, but certainly all over the environment. Also unproblematic is atheism with its denial of soul and the sacred—there is nothing to distribute. Under atheism/humanism human and non-human nature are at least at the same level.

Much more problematic are the cases of <a href="polytheism/monotheism">polytheism/monotheism</a>.

In both cases, but particularly that of monotheism, there is a tremendous concentration of soul-force at one point in the universe. the god(s). It is as if these points soak up the soul substance there is, leaving nothing for nature in general except for that self-appointed apex of nature, the human beings, and their self-appointed apex: those converted to those particular gods, not to mention that particular God, in the case of monotheism (Occident). A very steep sacred-secular gradient is introduced in the God-Man-Nature system, from 100% for God to 0% for Nature.

But in that case there would be nothing in the unmediated relationship to nature that would stand in the way of destruction. All would depend on God's words, God's opinion in these matters, and what kind of sanctions would be at His disposal, showing up in the first run as good and bad conscience, later on possibly even as His punishment and reward. The sacred text revealed by God via his prophets would be decisive. If they say little or nothing on the matter then either destructiveness would be in order, or else a switch to the second mode of orientation to nature: the rational approach.

On the next page the reader will find an effort to elaborate religious stands on nature, in Table 2.

We have 49 combinations altogether in the Table. One of them is a blank since I do not think in general we can assume indigenous civilizations to have particular views on micro-organisms (in this I may be entirely wrong), leaving a total of 48. Of these 48 the highest frequency is for a flat no where sacredness is concerned, 22 cases. In about as many cases, 23 of them, there is an opening, a possibility. And only three cases are characterized as a relative unambiguous stand in favor of positive sacredness, all of them under Buddhism.

It goes without saying that all of this should be taken <a href="cum grano salis">cum grano salis</a>, to put it mildly. But it does not seem so far-fetched to identify the occidental civilization of the expansionist variety, carried religiously by the harder aspects of Judaism, Christianity and Islam to be almost unambiguously devoid of any deep notion of sacredness of nature, except for the cosmosphere. A question mark has been put here. Is that not the Above, the yonder where God has His abode? If He is that awesome should that not inspire some respect, and make people hesitate before they litter the universe with all kinds of space junk? So far the normative restraints where outer space is concerned seem to have been minimal relative to rational constraints, and even those rational constraints do not seem to be very impressive. The

TABLE 2. Is nature sacred?--The views of the major civilizations.

	OCCIDENTAL IN EXPANSION	OCCIDENTAL IN CONTRACTION		BUDDHISM	CHINESE CIVILI- ZATION	JAPANESE CIVILI- ZATION	INDIGENOUS CIVILIZATIONS	
ANIMALS	NO	?	?	YES	?	?	?	
PLANTS	NO	?	NO	YES	NO ?	NO ?	?	
MICRO-ORGANISMS	NO	NO ?	NO	YES (JAINISM)	NO ?	NO		
LITHOSPHERE	NO	NO ?	NO	NO	NO ?	NO	?	
HYDROSPHERE	NO	NO ?	NO	NO	NO ?	NO	?	
ATMOSPHERE	NO	NO ?	NO	NO	NO ?	NO	?	
COSMOSPHERE	?	?	NO	NO	NO	NO	?	
SUM NO NO ? ? YES	6 0 1 0	0 4 3 0	6 0 1 0	4 0 0 3	1 5 1 0	5 1 1 0	0 0 6 0	22 10 13 3

maximum that can be conceded seems to be a question mark in this particular category, however.

This does not change that much when we come to Hinduism. After all, the untouchables/casteless/pariahs are what they are among other reasons because they are butchers, indicating that animals are not that sacred, except to those on the higher rungs of the caste system. But they alone do not constitute a civilization. There is the peculiar position of the cow symbolic of the sacredness of life, possibly not only of animals but of all sentient beings. But, as pointed out in the preceding section, cows alone do not an environment make. And Hinduism as such is much more polytheistic

than pantheistic, consequently not in itself a source of general sacredness of nature.

But regardless of what might be said about Hinduism, Buddhism is so much more clear. Not only human beings, also animals, possibly also plants, have Buddha nature. This extends to all sentient life. In Jainism, which emerged historically in a way parallel to Buddhism, both of them from Hinduism, it is quite clear that micro-organisms are sacred, hence the proverbial filtering of the air before it enters the human mouth when breathing, lest micro-organisms be ingested. No doubt such humans would be very soft on nature, although it does not follow as a direct consequence that there should be softness relative to lithophydra- and atmosphere.

In Chinese civilization we do not have the clarity of Buddhism even though there is the Buddhist element in the Chinese amalgam. But there is also the highly pragmatic, one might say rational-minded approach of Confucianism, even if unaided by what in the West is referred to as science. On top of these two, however, there is Daoism with its natural philosophy inspired by a dialectic so organic that it is hardly stretching the matter too far to say that there is an element of pantheism in Daoism. But the element is not so clear as Buddhism with its basic assumption of unity-of-life (not only unity-of-man).

Somewhat similar comments can be made about the Japanese amalgam. There is the Buddhist component in the semi-sacredness, if one may put it that way, of animals and plants, probably also a shinto element. That latter element, incidentally, would also be found in selective parts of nature such as Fujisama--an hypothesis that was not tested since there was no fighting on the Japanese main island during the Pacific War, that might have offended the sacred mountain.

On the other hand, there is no Daoist influence in Japan that could extend the question marks downwards in the hierarchy in spheres as has been done for the Chinese case. And the result is for everybody to see--the nature cult is en miniature, bonsai.

Then, finally, there are the "minor" civilizations, the indigenous cultures, all wrapped into one column. All I can do is to put question marks indicating that there is no general, definite conclusion in either direction but an opening towards sacredness and a morally induced abstention from destructiveness. Greek and Roman civilization would fit here, as the other two components of Western civilization (Judaism/Christianity would make three), of little significance today.

Let me try to summarize the conclusions from Table **2**, certainly conceding that some of the signs are highly debatable, but not necessarily conceding that the conclusions are not robust enough to hold up against some minor revisions.

First, the general picture is that of a humankind removed from nature, or at least not deeply immersed in it. Phrased in religious terms the major causes of removal seem to be the monotheism of occidental religion, the polytheism of Hinduism and the

atheism (combined with diluted pantheism via the Buddhist influence) of the Chinese and Japanese amalgams. Immersion in nature is found in indigenous civilizations and in Buddhism, but even so only partly, never totally, completely.

Second, the two extremes are occidental civilization in expansion on the one hand and Buddhism on the other. I would draw from this the tentative conclusion that the environment is wors toff when mastered by confirmed occidentals, be that of the (hard) Jewish, Christian or Muslim varieties. And the environment is probably best off when administered by Buddhists. It belongs to the picture that whereas the latter is a decreasing and relatively small minority in the total world conglomerate of religions the former is increasing, probably towards majority status in the world.

Third, the total picture is worse than presented in Table 2 because occidental expansionist civilization is invading all the other six, being an overlayer for all of them, inside and on top of many of their members, and particularly those in the elites. There is invasion of the occidental periphery as well as of all indigenous peoples; and invasion of the Hindu civilization in India and of the Buddhist civilization in Southeast and East Asia. China and Japan have managed to remain more autonomous, but on the other hand these are also the civilizations where religion constitutes less of a bulwark against man's nastiness to nature.

But what about vegetarianism one might wonder? Do we not have vegetarianism both in the Hindu, Buddhist, Chiness and Japanese civilizations, if not complete at least partial? Yes, that is definitely true and this may be both the cause and the effect of a sense of sacredness of life. But that would only extend to animate nature, not to inanimate nature. With animals being increasingly herded together in animal reserves, national parks etc. one might imagine that this could set these reserves off as sufficiently sacred to represent "open nature"—like an "open city", not to be touched by the extreme insults of warfare. This is certainly more than nothing, but considerably less than what is needed for general protection of nature, including the base in atmosphere, hydrosphere, lithosphere, micro-organisms and plants needed for the successful operation of photosynthesis towards all the necessities for the food chains on which we all depend.

So I would take the vegetarianism of the Hindu, Buddhist, and (to some extent) Chinese and Japanese civilizations to be indicative of a deeper connection with animate nature than what is found in occidental civilizations and also, incidentally, in many of the highly carnivorous indigenous civilizations. With the additional note that in Buddhism the relation is deeper, extending to more spheres. This might be an element on which to build for the development of a higher level of identification with nature. On the other hand, there may be no transfer from identification with animate to inanimate nature. And inanimate nature may take precedence, being more useful to man (e.g. as energy resource), and hence more mercilessly exploited.

It may, certainly, be objected that this picture is static. The table may capture dominant characteristics of world religions today, but what about tomorrow? Is there not a new religiousness coming, often with fundamentalism? Yes, but it is not obvious that this generally will bring in its wake any stronger reverence for nature. To the extent that fundamentalism stands for a return to the scriptures as they were originally interpreted, by the revealers, the prophets, the Christ, the Prophet reverence for nature does not necessarily follow. The Supreme Being of occidental religions, Yahweh-God-Allah, is the Creator, but also the Destroyer if He so wills. He alone is eternal, the rest lives on borrowed time, from Creation to Destruction (in Armageddon). And at the time of the revelations the environment must have been seen as threatening and difficult rather than fragile, in need of support or at least extreme care. Only a civilization no longer overawed by nature could develop such ideas, one might think.

But this would not hold for the more polytheistic, and particularly not the pantheistic traditions. In these traditions there is opening for a different view of nature as something to be respected, even revered, to be interacted with, not merely to be acted upon. This might hold less for hinduism, but certainly for buddhism, daoism and shintoism, not to mention for the indigenous religions almost invariably embracing nature worship one way or the other. Hence, any fundamentalism in these parts of the world might be positive.

But what about the "new religiousness" of the West? Do we not hear much about the environment today, also from the pulpit? That a sense of impending major ecological disasters also have pervaded the churches is no proof that it is a religious phenomenon, however. The argument could also be that churches catch up and that Scriptures are sufficiently rich (and ambiguous) to provide some theological underpinning for those in need for logical connectedness.

However, there is a new religiousness in the West that is not necessarily Christian. The Aquarian Age, the New Age take in ideas that are capable of accommodating higher environmental consciousness in the emphasis on holism and a Second Coming. Much of this is inspired by oriental ideas tempered by occidental science-based rationality growing out of the relatively recent (trans)discipline ecology. The logical meeting ground where a Christian form can be filled with oriental and scientific content is, of course, the US West Coast in general and California in particular. What this actually means in terms of concrete action protective of the environment remains to be seen.

However, let us extrapolate and ask an unasked question:
will religions of the near future be more environmentalist?
Possibly, yes. Imagine major and new types of ecological
break-downs, beyond earthquakes and tsunamis. There will be
no scarcity of scientific explanations, but they may sound
unsatisfactory to many who will see nature as an instrument
of God's revenge or as a conscious actor in its own right.
Eut to integrate this in a normatively commanding manner takes time!

### 3. The scientific orientation to nature

It is easily seen from Table 2 not only where but also to some extent how, "modern" science emerged: in Man's relationship to desouled nature, desouled by monotheism. The god of occidental (semitic) religion prepared nature well by absorbing all soul substance in himself, leaving nature naked as an object to be studied "objectively". Distance was needed for abstraction and generalization, the goals and tools of modern science, which at the same time could be construed as a way of better understanding the nature of creation as brought about by the Creator. In other words, in doing science God could still be served while preparing not only dissection but destruction of nature.

That science is double edged. On the one hand it permits us to predict the results of our manipulation of nature. On the other hand it also permits us to manipulate nature more deeply, in a less superficial manner. With environmental degradation proceeding the net conclusion must be that the costs of the latter outweigh the benefits of the former. Nevertheless, the possibilities are there for a highly rational, scientific, cost-benefit oriented approach to nature where in principle all consequences of our dealings with nature can be predicted in space to the most remote corner of the world; and in time, for future generations. Given sufficient synchronic and diachronic solidarity this should, in principle, give us a rational basis for nondestructive decision-making, including arriving at the conclusion that the insults through warfare on nature are not only irrational, but even suicidal, bordering on the sui-genocidal.

In principle, yes. But in practice modern science has built into it two aspects that militate against rationality in global issues. And the two aspects of science, the qualifier "modern" being redundant, would be atomism and deductivism. The tradition of Aristotle and Descartes demands a subdivision of reality into smaller parts until what can no longer be subdivided has been attained, the atom (from Greek a temnein, not to be divided). This applies to the objects or units to be studied and to the aspects explored, the variables. Ever finer discriminations are made. What is easily lost is any sense of the totality, the global, the all-encompassing, seen in a more holistic manner.

This is further aggravated by deductivism, by the demand to chain propositions together in logically more or less well connected verbal edifices known as theories. Logical connections are substituted for "inner", "organic" ties. [5] In some alternative epistemologies this inner connection is known as "dialectic". This is not the place to argue the pros and contras of the atomistic-deductive versus holistic-dialectic approaches, the bias of the present author being in favor of an eclectic combination.

But the point can be made that any inner connectedness of the environment does not come easily to a scientific tradition insisting on substantive and conceptual divisions, even in different intellectual territories known as "disciplines". That word carries a double meaning: the demarcation of a territory, as well as the discipline not to cross the borderline. But that transgression is indispensable.

Easily said, not so easily done, and even if done and done well not so easily carried into real life as an action directive. There is no doubt that occidental civilization, which is the least constrained by religious considerations according to Table 2 is also the one that has been on the forefront in producing rationally founded consequence analyses. What comes out of other civilizations looks like imitations of occidental approaches, and consequently the occident draws the conclusion that their science is "universal". And even so the science of ecology, or environmental science in general, which is obviously the one that we are implicitly referring to, is itself a rather new science. That is not necessarily a drawback. But there is one clear implication: the tendency to act according to that science even when the findings are impeccable cannot possibly be very well dispersed in world space. That takes time.

Let us try to draw some conclusions from these reflections. First, the scientific approach has as its assumption, its very basis, the existence of a science capable of producing valid predictions in space and time. Of course that science does not really exist, if for no other reason because of the difficulties in predicting the operation of an ecological cycle that passes through hydrosphere and atmosphere. But let us assume in what follows that the scientific basis for the rational mode of the man-nature relation exists.

Second, even so there is an important ethical assumption: the cost-benefit analysis should not only extend to me, here and now but to everybody, everywhere and for the entire future. The rational mode may also be the basis for entirely rational egocentricism, not altruism. The ethical assumptions of synchronic and diachronic solidarity may not be satisified, that depends on the level of identification with humanity in space and time which certainly is differentially distributed. And this is particularly the case in social space: even if cosmopolitan scientists in the fields of ecology both have the knowledge and the ethical maturity the leaders of society may be very short on either.

In short, we do not get away from an ethical assumption.

"Enlightened self-interest" is sufficient if self=Self=humankind.

But within scientific discourse, in an atheist/humanist setting, there is at least a steep sacred-secular gradient to contend with. There is no assumption of any duty to conquer the profession as an abode of possibly evil forces; nor of any right to do so on behalf of the ultimate source of the sacred. Humanism may recover some of this gradient, however, making man separate from nature, producing highly anthropocentric world images.

At any rate, a shared sense of urgency, together with compelling data and theories would be needed. Neither data, nor theory, nor values alone would have the compelling force of a religious scripture. Beautifully constructed philosophical systems may be valid for philosophers. But they do not easily translate into a commanding Thou shalt not!

And this is the point where the exercise underlying Table 2 might 29 be extended to include the homosphere. In other words, to what extent are human beings sacred? What are the views of the major civilizations on this rather crucial point? What happens if we extrapolate upwards in Table 2, from the inorganic spheres via micro-organisms, plants and animals to human beings? Knowing that human beings are divided in at least five crucial ways, by age, gender and race, and then by class and nation? As age and gender vary within a family in any civilization the level of inviolability to the point of killing may perhaps not vary that much, at least for age. But what about race, class and nation? This is doubly important because it may influence the readiness to go to war against those who are less sacred, causing destruction not only in the homosphere but in all spheres; and the readiness to engage in solidary action with others who are different, to protect our environment rather than unloading the burdens on them.

The conclusions are not encouraging. Judaism has a concept of chosen people, so does shintoism. Christianity and Islam have concepts of true believers, in other words chosen persons. This is less pronounced or even absent in the soft versions of these four religions, but the hard versions are still very important. On the other hand Christianity and Islam are more universalist, Judaism and shintoism more particularist, pertaining to the in-group only. Chinese civilization is weak on identification with the outside, the barbarians. Hindu civilization is weak on identification with the lower castes and the costeless. Only buddhism professes a universalist identification with human beings of all kinds - but then buddhism is relatively weak.

Hence, there seems to be a synergy here: the civilizations hard on nature may also be hard on human beings and not only wreak destruction in warfare, but also unload the consequences on those of other colors, creeds or classes (the Hindu version, particularly).

#### Conclusion

An optimistic reading of Table 2, supplemented by the approach of the preceding section, might give us the conclusion that the sum of the religious and the scientific approaches is about constant for all seven civilizations. In expansionist occidental civilization neither monotheism nor atheism will inspire any religious constraints against insults to nature; the scientific approach might inspire such restraint through the mechanism of "enlightened Self-interest". And as we then proceed to the other civilizations the scientific mode goes down and the religious mode up in various ways through the table, making us believe that we are reasonably well protected, one way or the other.

But this is not the case. Even in the West, the first civilization on this short list, the rational mode is not yet developed, and certainly not as an ethical imperative capable of restraining action. Rather, we might be said to live in a gap between a religiously inspired awe for nature and the scientifically inspired rational calculus, protected neither by one, nor by the other. Even a Buddhist environmentalist might not be sufficient to bridge that gap. For the tragedy is that we have left the religious attachment to nature behind, through our monotheism and atheism, much, much before we were able to anchor ourselves in or with nature again through the rational means of scientific analysis supplemented with simple ethical imperatives.

And it is not even clear that we are moving in an unambiguous manner from one to the other. We may rather be oscillating between the two, making efforts to regain our scientific virginity and religious maturity, while praising nature as pristine, as more and more virgin the more we violate her. And nowhere is this so clearly seen as precisely in the relationship to warfare. We know perfectly well that we depend on eco-cycles that sustain the food cycles for our survival. And yet we design weapons, deploy them, work them into our strategies for "security" as if this type of knowledge did not matter at all.

In short, I am not so sure that there is any solution to the basic problem of how to save the environment from human beings in this cultural approach, be that of the religious or scientific varieties. The solution must be located somewhere else, although both approaches indicate very important bases on which to build. The solution could possibly be in the direction of international law, of education, of strong institutions at the local and domestic levels in order to protect what is left of nature, perhaps even enhance that the further. But that lies outside the scope of this paper. What this paper points to are five openings to an ecologically sustainable future:

- a debate within each religious system to strengthen the softer and weaken the harder interpretation of the teachings
- an alliance among the softer forces in all religions
- a more holistic science, more able to understand key eco-systems
- a deeper solidarity with human beings today and in the future
- a deeper solidarity with non-human nature.

  Some day this may be our creed. But we are not yet there.

- (1) From The New Road, The Bulletin of the WWF Network on Conservation and Religion, Issue No. 1 1986/87. The excerpts quoted are from the extracts of the five declarations given on p. 2.
- (2) This is the old distinction between an ethics founded on intentions and the mind verse an ethics founded on consequences and action. The former is often held to be more commanding, among other reasons because of the difficulties in evaluating a broad range of consequences. But the two perspectives are not or should not be mutually exclusive. Concrete actions may be engaged in both because they are the right thing to do, and because they work. Religious and scientific perspectives are not necessarily contradictory. It is as legitimate to ask of a cultural norm the pra gmatic question "does it work" as it is to ask of a rule derived from common sense or scientific analysis "why should this rule command respect?"
- (3) See Johan Galtung, Tore Heiestad and Erik Rudeng, "On the Last 2.500 Years in Western Civilization: And Some Reflections on the Coming 500", in The New Cambridge Modern History, Companion Volume, Ch. 12, Cambridge, Cambridge University Press, 1977.
- (4) Of course, the word civilization has a built-in bias in favor of the city, the civis. In human history urbanization must have been more of a disaster to the environment than industrialization, at least so far only that we are more used to the former. The native Canadian Man has suggested sylvanization, with a similar bias in favor of forests, as a name for an alternative way for humankind to unfold.
- (5) Johan Galtung, <u>Environment, Development and Military Activity</u>, Oslo, Norwegian Universities Press, 1982; ch. 1.
- (6) Galtung, Heiestad, Rudeng, 1979, op. cit.

- (7) Having neither the insight to control pollution/depletion on the spot, nor vast commercial networks through which environmental degradation might be unloaded unto others, they had to clear the forest in increasingly barren soil, climbing up the hill sides, to make a living.
- Since the Meiji Revolution of 1868, and with readoubled vehemence since the end of the Second World War, the Japanese have been following the modern Western malpractice of exploiting nature, and they have been incurring the penalty. They have been winning wealth by industrialization and have been reaping pollution from it. (Toynbee, 1974).
- (9) Norbert Elias' magnum opus is, of course, <u>The Civilizing Process</u>, first published in German in 1939, with the first volume in English translation in 1979. Smith has provided s useful summary on violence:
  - n A "civilizing" of human "aggressiveness" has been occurring at least since early medieval times in what is now Western urban-industrial society. More specifically, there has been a gradual shift in balance between the affective or expressive forms of violence and the rational or instrumental forms of violence as characteristic violence-expressions, the balance tilting in the direction of the latter. Two fundamental changes in the organization of society wrought this transformation. First, the state acquired a monopoly on the use of violence, and violence by individual citizens diminished. Second, the typical pattern of social relationships changed from one based primarily on the ascriptive bonds of family and residence - what Elias' collaborator and protégé Eric Dunning calls "segmental bonding" - to one based primarily on achieved ties governed by a complex division of labour - what Dunning terms "functional bonding." The long-term results of these structural changes have been a decline in people's capacity for obtaining pleasure from ferocity and bloodletting and an advance in their willingness to use violence as a means to an end."(Smith, 1983; pp. 26 f)

(10) Callicott puts it this way:

Nothing is so small and unimportant but it has a spirit given it by Wakan Tanka....You can't explain it except by going back to the 'circles within circles' idea, the spirit splitting itself up into stones, trees, tiny insects even, making them all wakan by his everpresence (Callicott, 1982;0302).

According to Lame Deer, "Every man needs a stone....
You ask stones for aid to find things which are lost or missing. Stones can give warning of an enemy, of approaching misfortune." Butterflies, coyotes, grasshoppers, eagles, owls, deer, especially elk and bear all talk and possess and convey power. "You have to listen to all these creatures, listen with your mind. They have secrets to tell." (Callicat, 172; p. 301)
Is not the sky a father and the earth a mother, and are not all living things with feet or wings or roots their children?...Give me strength to walk

are not all living things with feet or wings or roots their children?...Give me strength to walk the soft earth, a relative to all that is(quoted in (Callicott, 1982:302)!

(11) To Toynbee this is the key factor:

...monotheism, as enunciated in the Book of Genesis, has removed the age-old restraint that was once placed on man's greed by his awe. Tognbee, 1974; p. 145)

And he spells out the contrast to pre-Christian Greek religion:

In popular pre-Christian Greek religion, divinity was inherent in all natural phenomena, including those that man had tamed and domesticated. Divinity was present in springs and rivers and the sea; in trees, both the wild oak and the cultivated olive-tree; in corn and vines; in mountains; in earthquakes and lightning and thunder. The godhead was diffused throughout the phenomena. It was plural, not singular; a pantheon, not a unique almighty super-human person. When the Graeco-Roman World was converted to Christianity, the divinity was drained out of nature and was concentrated in one unique transcendent God. "Pan is dead." "The oracles are dumb." (Toynoce, Pri pp 1431)

But the contrast, as leyapee sees it, is not only with the pro-Christian Greeks but with so many of the manifestations of the religious  $q\sqrt{\omega_s}$ :

Monotheism is exceptional among mankind's religions and philosophies in its doctrine about what is the right relation between man The Book of Genesis licences man and nature. to subdue nature. Confucianism and Taoism and Shinto, like the pre-Christian Greek cults of the corn-goddess Demeter (Ceres, in Latin) and the wine-god Dionysus, counsel man to respect nature even when he is applying his human science to coax nature into bestowing her bounty on man. The sanctuary at Ise, in Japan, which is the chief holy place of Shinto, is sited at a meeting-point of rice-paddies and virgin forest. The location of the Ise shrine signifies that man should beware of losing his respect for the divinity inherent in the Earth's flora, even when he cultivates it. Toynbec, 1874; p. 1474).

And Lynn white, Or., in his famous article "The Historical Roots of Our Ecologic Crisis", is very much on thesame line:

Especially in its Western form, Christianity is the most anthropocentric religion the world has seen. As early as the 2nd century both Tertullian and Saint Irenae us of Lyons were insisting that when God shaped Adam he was foreshadowing the image of the incarnate Christ, the Second Adam. Man shares, in great measure, God's transcendence of nature. Christianity, in absolute contrast to ancient paganism and Asia's religions (except, perhaps, Zoroastrianism), not only established a dualism of man and nature but also insisted that it is God's will that man exploit nature for his proper ends.

At the level of the common people this worked out in an interesting way. In Antiquity every tree, every spring, every stream, every hill had its own genius loci, its guardian spirit. These spirits were accessible to men, but were very unlike men; centaurs, fauns, and mermaids show their ambivalence. Before one cut a tree, mined a mountain, or dammed a brook, it was important to placate the spirit in charge of that particular situation, and to keep it placated. By destroying pagan animism, Christianity made it possible to exploit nature in a mood of indifference to the feelings of natural objects. (White, 1974) pp. 244.)

(12) Reading the quotes below from the Bible it is hard not to agree with Toynbee:

According to the Bible, God had created the World; the World was his to do what he liked with it; he had chosen to licence Adam and Eve to do what they liked with it; and their licence was not cancelled by the Fall. Town beet 1971; italia ours)

And God said, "Let the earth bring forth every kind of animal--cattle and reptiles and wildlife of every kind." And so it was. God made all sorts of wild animals and cattle and reptiles. And God was pleased with what he had done. (The Bible, Genesia): 24-25)

Then God said, "Let us make a man--someone like ourselves, to be the master of all life upon the earth and in the skies and in the seas."

So God made man like his Maker. Like God did God make man; Man and maid did he make them.

And God blessed them and told them, "Multiply and fill the earth and subdue it; you are masters of the fish and birds and all the animals. And look! I have given you the seed-bearing plants throughout the earth, and all the fruit trees for your food.

And I've given all the grass and plants to the animals and birds for their food." The Bible Genesis (: 26-30)

And the fear of you and the dread of you shall be upon every beast of the earth, and upon every fowl of the air, upon all that moveth upon the earth, and upon all the fishes of the sea; into your hand are they delivered. (The Bible: Genesis 9:2)

The Muslim approach is different Allah retains control, domanion.

Any crime against nature is also a crime against Aliah. In other words

sin. But how do we know whether we exceed "the measure" or math

Unto Allah (belongeth) whatsoever is in the heavens and whatsoever is in the earth; and whether ye make known what is in your minds or hide it, Allah will bring you to account for it. He will forgive whom He will and He will punish whom He will. Allah is able to do all things. Allah is able to do all things.

That ye exceed not the measure; But observe the measure strictly, nor fall short thereof. And the earth hath He appointed for (His) creatures.

(A) Quragy; 5 55, Vs. 8,9,10)

(13) There are several ways in which a defense of Christianity, against the attacks saunched by Toynbee and White can be built. Thus, Barr builds his defense on the idea that God was pleased with his Creation.
But White nimself brings in the soft Christianity of St. Francis:

In many religions nature, or some aspect of nature, is somehow divine or partakes in divinity; in the biblical religion, on the contrary, nature is "dedivinized." On the other hand, though nature is something other than God, it is explicit in Genesis that nature is not anti-God; it is not something opposed to God, something in itself evil. On the contrary, as Genesis puts it, "God saw that it was good"; and according to Genesis the created world is a cosmos, an ordered whole. (Barr, 1977, p.50)

The key to an understanding of Francis is his belief in the virtue of humility—not merely for the individual but for man as a species. Francis tried to depose man from his monarchy over creation and set up a democracy of all God's creatures. With him the ant is no longer simply a homily for the lazy, flames a sign of the thrust of the soul toward union with God: now they are Brother Ant and Sister Fire, praising the Creator in their own ways as Brother Man does in his. White 1174; y. 29

But then there is also the very different approach taken by Dubos and Smith below, pointing to other factors underlying environmental degradation, the goar and warfare:

Early men, aided especially by that most useful and most noxious of all animals, the Mediterranean goat, were probably responsible for more deforestation and erosion than all the bulldozers of the Judeo-Christian world. () bos, 1974; p. 121)

Warfare included ruining the enemy's lands, tearing up his trees, cutting down his vines, filling in his wells, storming his castle, killing his people, mutilating whatever prisoners were taken. After all, what could be done with prisoners? (Smith, 1983; p. 26)

Hindu sage, taught that:

All trees and plants are full of consciousness within themselves and are endowed with the feeling of pleasure and pain(Basak: 1953:106).

White has told how he was first led to formulate his thesis by watching Buddhists in Ceylon build a road. Noting cones of earth left undisturbed upon the intended roadbed, he discovered that these were the nests of snakes. The Buddhists would not destroy the cones until the snakes departed of their own accord from the scene of activity. Among other things, White could not help reflecting that had the road builders been Christian, the snakes would have suffered a different fate. (Spring Aud Spring 1974)

But then The first of the Five Precepts of Buddhism is:

I undertake to observe the rule to abstain from taking life(Conze, 1959:70).

That has a much wider meaning than is usually attributed to the Biblical commandment--Thou shalt not kill--for as the Pali commentary to that precept explains:

'Taking life' means to murder aything that lives...'Anything that lives'--ordinary people speak here of a 'living being', but more philosophically we speak of 'anything that has the life-force' (Conze, 1959:70).

For Buddhists, all of nature has the life-force and so all of it is, in theory, protected by the first precept, but, given that man does have to provide for himself, there is something of a hierarchy based on differing amounts of life-force. Thus, for example:

With regard to animals it is worse to kill large ones than small(Conze, 1959:70).

The use of the adjective 'worse' suggests that it is still bad to kill the small animals and it should be avoided if possible though it would not be as bad as killing a larger animal with more life-force.

Empty yourself of everyting.

Let the mind rest at peace.

The ten thousand things rise and fall while

The Self watches their return.

They grow and flourish and then return to the source.

Tao Te Ching: (h. 7)

There was something undifferentiated and yet complete, which existed before Heaven and Earth.

Soundless and formless, it depends on nothing and does not change,

It operates everywhere and is free from danger,

It may be considered the mother of the Univers e,

I do not know its name; I call it Tao.

Cenerally, the subject-object dichotomy between man and nature is largely absent from early Chinese thought. The Confucian scholar, Chang Tsai (1020-1077), for instance, maintained that:

Heaven is my father and earth is my mother, and even such a small being as I finds an intimate place in their midst. Therefore, that which fills the universe I regard as my body....All people are my brothers and sisters, ad all things are my companions (Wei-Ming, 1984:121).

Chuang Tzu (4th century B.C.E.), the Taoist philosopher, proclaimed that:

Heaven and earth and I live together, And therein all things and I are one (Chung-Yuan, 1978:146).

He who conforms to the course of the Tao, following the natural processes of Heaven and Earth, finds it easy to manage the whole world. Thus it was that Yu the Great was able to engineer the canals by following the nature of water and using it as his guide. Likewise Shen Nung, in the sowing of seed, followed the nature of germination and thus obtained instruction.

That is, insofar as ecological action is concerned, the Taoist's recommendation is so simple that it almost amounts to a truism: act in accordance with nature. However, one should be reminded of the fact that such a proposal is well supported both by the metaphysical and axiological conceptions of the mannature relation. It is exactly this kind of metaphysical grounding that an environmental ethic needs.

(Tp, 1963; p. 341)

(16) Erich Fromm makes use of an interesting contrast between having and being, more particularly having and being flowers, quoting two poets.

one from the Occident, one from the Orient and in this case from Japan:

(Consider)...two poems of similar content...One is a haiku by a Japanese poet, Basho, 1644-1694; the other poem is by a nineteenth-century English poet, Tennyson. Each poet describes a similar experience: his reaction to a flower he sees while taking a walk. Tennyson's verse is:

Flower in a crannied wall,
I pluck you out of the crannies,
I hold you here, root and all, in my hand,
Little flower--but if I could understand
What you are, root and all, and all in all,
I should know what God and man is.

Translated into English, Basho's haiku runs something like this:

When I look carefully I see the nazuna blooming By the hedge! (1976:16)

(Fromm, 1976; p. 17)

In general, , traditional Shintoism preaches reverence for nature and it is not uncommon to find Shinto shrines to the god of trees, or rivers, or mountains. In the Kojiki, which is a compilation of Shinto stories and myths, all aspects of nature are praised for their divine essences. As the Japanese scholar, Inazo Nitobe, himself a Christian, said of Shinto belief:

Why seek afar for the divine? It is even in the objects around you....This is Shinto, the way of the Gods(Ballou, 1945:27).

(17) Toynbee. In his summary of the relation between religion and environment, comes to very similar conclusions:

If the cogent evidence for divinity were really power, Dionysus and Demeter and Zeus and Poseidon. who are now re-asserting their power, would be more credible gods than Yahweh; for they are demonstrating to present-day man that he cannot pollute soil, air, and water with impunity. However, the founders of the less crude religions and philosophies have perceived that nature of divinity is not power but love, benevolence, and humanity (the concept conveyed in the Chinese word jen). The Buddha, the Bodhisattvas and Christ stand, not for the exercise of power, but for self-abneqation and selfsacrifice; and it is significant that the figure of Christ has dissolved monolithic Jewish monotheism into the Christian Trinity. Confucianism and Shinto stand for a harmonious cooperation between man and nature. Taoism stands for letting nature take her course, undisturbed by impertinent and clumsy human interference. Surely the Weltanschauung that follows from these more perceptive and less aggressive religious and philosophical traditions is the one that now offers the mose promising hope of salvaging mankind. The injunction to "subdue," which modern man has taken as his directive, is surely immoral, impracticable, and disastrous. (Toynbee, 1974; p. 149)

(18) Mary Ferguson expresses it this way in her important book:

Not even the Renaissance has promised such a radical renewal; as we have seen, we are linked by our travels and technology, increasingly aware of each other, open to each other. In growing numbers we are finding how people can enrich and empower one another, we are more sensitive to our place in naure, we are learning how the brain transforms pain and conflict, and we have more respect for the wholeness of the self as the matrix of health. From science and from the spiritual experience of millions, we are discovering our capacity for endless awakenings in a universe of endless surprises. (Fergus M. 1932; p. 446)

We create alternative scenarios of the future. We communicate about the failures of old systems, forcing new frameworks for problem-solving in every area. Sensitive to our ecological crisis, we are co-operating across oceans and borders. Awake and alarmed, we are looking to each other for answers. (Forguson, M. 1972; p. 447)

[19]

Western man inherited from the Enlightenment legacy a conception of nature which is patently anti-environmentalistic. The world is depicted, chiefly through the work of Descartes, as a big machine consisting only of extended matter. It has no life of its own and no value of its own. Its value can only be defined in terms of human needs and purposes. It does not have intrinsic value of any sort, but has only instrumental value defined in terms of human desires. Man, being the possessor of mind, can willfully subject this allegedly lifeless world to his desires and purposes. The extreme consequence of such homocentrism is the ruthless and unlimited exploitation of the environment. (Ip) 1163(3)

[20]

The developing element of mastery in the theoretical structure of modern natural science, its progress toward greater completeness and sophistication, is the fruit of its internal rationality. But that rationality necessarily remains bound to the domain of scientific nature and collapses in departing from it, because the conditions according to which that rationality first operates at all are established by the original idealization (the mathematization of nature) upon which it rests. The circumscription of the range of its application is the ransom exacted for its service. (Leisi, 1972; pp. 140f).

(21) Kheel expresses to this way:

Some day, perhaps we shall have an identity that can enjoy the earth as friend, provider and home. When that happens, we will know that when the earth hurts, it will hurt us. Then, the environmental ethic will not just be in our heads but in our hearts—in the nerve endings of our sensitivity. (Wheel; 1905, pp. 1475)

And he pins much of his hope of feminist spirituality:

Feminist spirituality has shown us how the concept of a patriarchal religion, which views God as a male figure of authority in the sky telling us how we should think or feel, does not speak to the needs of those who feel that their spirituality flows from within. In a similar vein, it may be argued, the concept of ethics as a hierarchical set of rules to be superimposed upon the individual does not address the needs of those people (perhaps, mostly women) who feel that their morality or inclinations toward nature reside within themselves.

(Uheel, 1915; g. 147)

(22) This is the role White gives to St. Francis' Christianity:

The greatest spiritual revolutionary in Western history, Saint Francis, proposed what he thought was an alternative Christian view of nature and man's relation to it: he tried to substitute the idea of the equality of all creatures, including man, for the idea of man's limitless rule of creation. He failed. Both our present science and our present technology are so tinctured with orthodox Christian arrogance toward nature that no solution for our ecologic crisis can be expected from them alone. Since the roots of our trouble are so largely religious, the remedy must also be essentially religious, whether we call it that or not. We must rethink and refeel our nature and destiny. The profoundly religious, but heretical, sense of the primitive Franciscans for the spiritual autonomy of all parts of nature may point a direction. I propose Francis as a patron saint for ecologists. (white, 1974; p. 31)

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