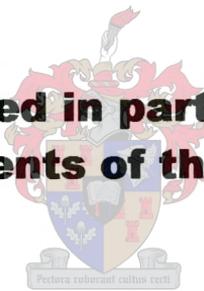


SUBDUERS OF THE EARTH?

**The Bible, Christian Faith
and Environmental Ethics**

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requirements of the degree**



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DECLARATION

I, the undersigned, hereby declare that the work contained in this assignment is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

ABSTRACT

I begin this assignment with an examination of verses such as Gen. 1:28 from the period of primeval history in the Old Testament (O.T.) of the Christian Bible which have been seen by some commentators, particularly Lynn White, as being responsible for a despotic attitude towards the natural environment and consequently for much of the damage that has been done to the environment. These texts are critically examined to determine whether one *may* interpret them in that manner but also taking into account the form and context of writing. The 'despotic' interpretation of these texts is contrasted with the views of others, such as Robin Attfield who see in them a call to stewardship, not a licence to ruthlessly subjugate. Attfield particularly does not believe that these ancient texts can be held responsible for the present ecological crisis.

Thereafter an examination is made of O.T. texts which refer to the concept of rest for the earth which, for our present-day context is interpreted in this assignment as a rest from the rigours of environmental degradation and from the over-exploitation of the earth's resources.

New Testament (N.T.) texts are also critically examined in section 4, examining in the gospels Jesus' attitude towards the natural environment, and also other N.T. texts, particularly from the epistles of St Paul. The conclusion in this section is that the N.T. writers portray a benevolent attitude towards non-human nature and portray God as caring for even those inhabitants of the natural realm which humans may deem insignificant, eg, the sparrows referred to in Luke 12: 6. In section 5, there is once again an examination of N.T. texts, but this time for the purposes of re-interpreting the concept of salvation so that it embraces the whole of creation and not only humankind. The point of departure here is that humans cannot be separated from their non-human environment on this earth. Salvation and reconciliation is for the whole of the created order, as St Paul seems to indicate. Therefore in this section of the assignment an holistic view of salvation is adopted: we are saved *in* our world and *with* our world, not apart from it and out of it.

Section 6 endeavours to draw together the criteria that would inform an environmental ethic that Christians can subscribe to, given the approach that has been taken in the previous sections of the assignment; 6.2 lists the features necessary for such an ethic. An examination is also made of various ethical theories such as Natural Law (Teleology), Utilitarianism, and Deontology and what impact they would have if applied in an environmental framework. This section ends in 6.5

with an overview of the main tenets of the Deep Ecology movement, not viewing it so much as an ethical system, but more as a set of values which accord with a deep respect for all of nature and which may guide humankind to transform destructive attitudes towards the environment.

Because this assignment deals with Christian morality in respect of the environment, it is necessary to critically examine the concept of stewardship which is the thrust of section 7, titled 'Stewardship Revisited'. The views of Robin Attfield, John Passmore and William Dyrness with regard to stewardship in the Bible and Christian tradition are contrasted. Thereafter Elizabeth Dodson Gray's views are referred to and supported as the way towards a much-needed transformation of humans' attitude to the natural environment. Gray rejects the notion of stewardship as an acceptable environmental ethic because it retains the overtones of domination and paternalism. It is concluded that stewardship, even if it is biblically justified and is supported by Christian tradition, has failed to arrest the degradation and destruction of the natural environment caused by human activities. This then leads on to the next section where this assignment supports Gray's 'Ethic of Attunement'.

'Becoming Attuned', the heading of the section describes in two words the basis of Elizabeth Gray's environmental ethic. It is noted here that she calls upon humankind to become attuned to our ecosystems and the life-support systems in the biosphere and to plan and structure our industries and activities to 'fit in'. Gray's ethic of attunement is also supported because it is practical, down-to-earth and takes into account the needs of human beings as part of nature.

Section 9 gives a brief overview of some practical implications and applications of an ethic of attunement. The fields of education, industry, farming, energy and nature-conservation are touched on. The last subsection under 9, 9.6, gives a recent example of a clash between human and non-human nature in the Cape Peninsula, namely, the so-called invasion of residential areas by baboons. How this problem may be dealt with under an ethic of attunement is discussed.

This assignment concludes in section 10 with the exhortation to move beyond an ethic of stewardship of the natural environment to one of attunement. Moreover, the urgency of doing so is emphasised. If we do not change our ways to fit in with nature, planet Earth is doomed to ecological destruction.

OPSOMMING

In die begin van hierdie taak word verskei Bybelse verse uit die oergeskiedenis in die Ou Testament (O.T.) ondersoek om te bepaal of hulle verantwoordelik gehou kan word vir die mens se despotiese gesindheid teenoor die natuurlike omgewing en die gevolglike skade wat so 'n gesindheid veroorsaak. Verklaarders soos veral Lynn White is van mening dat verse soos Genesis 1: 28 wel aanleiding gegee het tot so 'n despotiese gesindheid teenoor die omgewing. Hierdie mening word in teenstelling geplaas met die sienswyse van skrywers soos Robin Attfield wie meen dat die verse onder bespreking te doen het met rentmeesterskap eerder as despotisme. Bowendien glo Attfield dat hierdie oeroue tekste nie verantwoordelik gehou kan word vir ons hedendaagse ekologiese krisis nie.

Daarna word ondersoek ingestel in die O.T. tekste wat te doen het met die konsep van rus vir die aarde. D ie konsep word in hierdie deel van die taak vertolk in ons hedendaagse konteks as 'n rus vir die aarde van omgewingsdegradasie en die onmatige ontginning van die aarde se hulpbronne.

Tekste uit die Nuwe Testament (N.T.) word ook ondersoek. In afdeling 4 word gekyk na Jesus se woorde en gesindheid met betrekking tot die natuurlike omgewing asook ander verse uit die sendbriewe van Paulus. Hier is die gevolgtrekking dat die N.T. skrywers welwillendheid betoon teenoor die nie-menslike natuur en dat hulle vir God afbeeld as besorgd oor die geringste van wesens in die natuurlike w reld, dit wat die mens as nietig mag beskou, soos die mossies waarna verwys word in Lukas 12: 6.

In afdeling 5 word daar weereens N.T. tekste ondersoek, maar hierdie keer met die doel om die tradisionele dogma van verlossing om te skep sodat dit die hele skepping omhels en nie net die mensdom nie. Hier is die uitgangspunt dat ons nie die mens kan afsonder van die res van die skepping nie. Verlossing en versoening is vir die hele skepping, soos dit blyk in party dele van Paulus se briewe. 'n Alomvattende benadering tot verlossing word in hierdie deel van die taak bevorder: ons word verlos *in* en *met* die res van die skepping, en nie apart daarvan nie.

Afdeling 6 poog om die maatstawwe te identifiseer wat behoort deel te wees van 'n omgewingsetiek vir Christene, gegewe die rigting wat ingeslaan is in die vorige afdelings van die

taak. In 6.2 is daar 'n lys opgestel van die maatstawwe wat nodig geag is. Verskeie etiese teorieë soos Utilitarisme en Teleologie word nagegaan om hulle uitwerking op omgewingsetiek te bepaal. Hierdie afdeling eindig met 6.5 waar die grondbeginsels van die 'Deep Ecology' beweging voorgehou word as die soort waardes wat die mensdom kan lei om 'n innige respek vir die hele natuur te koester. Daar word saamgestem met die mening dat 'Deep Ecology' nie 'n praktiese, stelselmatige omgewingsetiek is nie, maar, as ons die ideale en grondbeginsels daarvan aanneem, mag dit die nodige transformasie veroorsaak in mense se verkeerde gesindheid teenoor die natuur.

Omdat hierdie taak met Christelike omgewingsetiek te doen het, is dit nodig om die konsep van rentmeesterskap as omgewingsetiek te ondersoek, want dit is deesdae die oorheersende nadering in die Christelike kerk. Die menings van Robin Attfield, John Passmore en William Dyrness met betrekking tot rentmeesterskap word in teenstelling getrek. Daarna word gekyk na Elizabeth Dodson Gray se sienswyse aangaande die etiek van rentmeesterskap teenoor die omgewing. Haar sienswyse word ondersteun – dat rentmeesterskap hoofsaaklik 'n etiek van heerskappy of baasspeel is. Die gevolgtrekking hier is dat rentmeesterskap nie meer voorgehou kan word as 'n paslike omgewingsetiek nie. Dit het nie tot dusver geslaag om die degradasie en vernietiging van die natuur deur die mens stop te sit nie.

Gray sê dat die mens in ooreenstemming moet kom met die natuur ('become attuned'). Dit is die inhoud van afdeling 8 – 'n uitleg van haar 'Ethic of Attunement'. Haar uitgangspunt is dat die mens hom/haarself moet sien as deel van die natuur en nie as oorheerser nie. Al die mens se aktiwiteite, en veral die nywerheid, moet inpas by die natuur se siklusse. Gray se etiek word ondersteun omdat dit prakties is en omdat dit die belangstellings en benodighede van die mensdom in ag neem, maar as *deel* van die natuur.

Afdeling 9 word gebruik om kortliks te skets wat sommige van die implikasies en praktiese toepassings van hierdie etiek in die samelewing mag wees. Hier word gekyk na die uitwerking op opvoeding, nywerheid, boedery, energie en natuurbewaring. In die laaste onder-afdeling in hierdie afdeling, 9.6, is daar 'n beskrywing van 'n spesifieke probleem wat te doen het met die botsing tussen die mens en nie-menslike natuur. Die onlangse botsings tussen mense en bobbejane in die Kaapse Skiereiland word gebruik om te sien hoe Gray se omgewingsetiek van 'attunement' in so 'n situasie gebruik kan word om 'n oplossing te kry.

Die taak eindig met afdeling 10 waar mense aangespoor word om die omgewingsetiek van 'attunement' aan te neem en die etiek van rentmeesterskap af te skaf. Bowendien word daar gepleit dat dit dringend moet gebeur want as ons nie ons algemene gesindheid van oorheersing verander nie, is die aarde verdoem tot vernietiging van die natuur.

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and

DEDICATION

Many thanks to Professor Johan Hattingh for sharing his insights and expertise in the field of environmental ethics, for his attempts to make classes stimulating and for his guidance in this assignment.

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I also dedicate this work to Maureen for her patience, perseverance and encouragement.

Abbreviations used in this Assignment

Cor	Corinthians
Eze	Ezekiel
Gen	Genesis
J	Yahwist (writer/s)
Lev	Leviticus
Lk	Luke
Matt	Matthew
Mk	Mark
NIV	New International Version of the Bible
P	Priestly (writer/s)
Ps	Psalms
RAV	Revised Authorised Version of the Bible
REB	Revised English Bible
Rom	Romans
RSV	Revised Standard Version of the Bible

CONTENTS

1.	Introduction	1
2.	Texts from Primeval History in the Bible	6
3.	More texts from the Old Testament with special reference to the concept of ‘Rest for the Earth.’	15
4.	Has the New Testament anything to say?	24
5.	“ God so loved the <i>world ...</i> ” – Salvation, Reconciliation and the Environment.	29
6.	In the light of what has gone before, which Environmental Ethics for Christians?	35
7.	Stewardship revisited	53
8.	Becoming attuned	58
9.	Practical implications and application of the Ethic of Attunement	64
10.	Conclusion	71
	Bibliography	74

1. **Introduction**

When I look at thy heavens, the work of thy fingers,
the moon, and the stars which thou hast established;
what is man that thou art mindful of him, the son of man
that thou dost care for him?

Yet thou hast made him little less than God, and dost
crown him with glory and honour.

Thou hast given him dominion over the works of thy
hands; thou hast put all things under his feet ...

Psalm 8:3-6, Revised Standard Version of the Bible (RSV)

The above extract from Psalm 8 appears to accept that ‘man’ has a position of domination over the rest of creation, that he is lord of all he surveys, and that he has been appointed by God to this position of superiority and dominance. Using the clause, ... *thou hast put all things under his feet* ... , certainly may give the impression that ‘man’ is created to subjugate all else that co-exists with ‘him’ in ‘his’ environment. In the first (so-called priestly) creation story in Genesis 1, verse 26 seems to confer this sovereign status upon ‘man’ in relation to ‘his’ environment at the time of creation (the extract from Ps. 8 is probably an echo and poetic embellishment of the Genesis text).

Then God said, “Let us make man in our image, after our likeness;
and let them have dominion over the fish of the sea, and over the
birds of the air, and over the cattle, and over all the earth, and over
every creeping thing that creeps upon the earth.”

Gen. 1:26 (RSV)

After their creation “in the image of God” (Gen. 1:27), human beings are given authority by God to “subdue” the earth:

And God blessed them, and God said to them, “Be fruitful and
multiply, and fill the earth and subdue it; and have dominion over
the fish of the sea and over the birds of the air and over every
living thing that moves upon the earth.” (Gen. 1:28 - RSV)

Some writers on environmental ethics claim that biblical passages such as the above, and the general depiction of humans' relationship to their natural environment in scripture, especially in the Old Testament, lie at the root of the modern ecological crisis. It is claimed by this school of thought that these scriptures give to humans a licence for uncontrolled exploitation as the despotic overlords of the natural environment. The argument is that in the Judaeo-Christian tradition, an acceptance of this 'God-given authority' and the exercise of what is seen as an unrestricted licence to exploit at will the natural world – which is there solely for the benefit of humans – has led to much of the environmental degradation in the world. Lynn White is one such prominent writer and has expounded this view in his essay 'The Historical Roots of our Ecological Crisis.'

However, we have on the other hand writers who believe that the Old Testament passages about humans' relationship to their natural environment are not a licence to exploit (in the pejorative sense of the word), but permission to use with care – irresponsible attitudes towards nature are not condoned. J. Passmore (1980) and R. Attfield (1983) are in the latter group. This may well be the case with passages other than those mentioned above, but in Gen. 1:28, for instance, the original Hebrew word which is translated as 'subdue' has very definite tones of subjection, even trampling underfoot, as I will point out later in this assignment.

What may be more to the point is whether these passages, even if in their original intended meanings they do advocate despotic rule over the natural world by humankind, may be identified as a root cause of our problems of environmental degradation and over-exploitation of natural resources in this day and age. Robin Attfield would say, 'No' :

... it would be a fallacy to represent as the cause of our largely post 1945 ecological problems such ancient Hebrew beliefs as may have originated the Western attitude to nature. (1983:21-22)

Attfield contends that the adoption of creation theology by Christians in the western world, after centuries of not paying much heed to it, led to the scientific harnessing of nature for the welfare of humankind.

... belief in creation implies the possibility of natural science and belief in man's dominion implies that its pursuit is, for some at least, a humanitarian duty. These implications of central Christian

doctrines were ... neglected ... for many centuries, but the connection was explicitly argued in the early seventeenth century by Francis Bacon ... Two hundred years later, and against the background of the same beliefs, science began to be applied systematically to technology and medicine ... although belief in Christianity has waned, belief in the propriety of harnessing natural forces for human benefit has not. (1983:22-23)

This contention of Attfield points to the probability that, while biblical creation theology may not be directly responsible for present day ecological problems and destruction, it could at least have provided the original motivation and impetus for the strongly anthropocentric attitudes and environmental practices which have caused degradation in western and westernised societies.

Attfield also maintains that the concept of stewardship has for centuries been part of the Christian approach to what God has provided in creation. He writes that the biblical belief in stewardship was re-emphasised by Calvin well before Matthew Hale gave expression to it in 1677, which John Passmore believed to be the first time (Attfield, 1994:30). However, it does appear that stewardship has only really noticeably come to the fore in the last few decades in Christian teaching and attitudes as the damage we are doing to our environment became more clear. However, Elizabeth Dodson Gray (1994) calls into question even this approach in environmental ethics, an approach which many – if not most – Christians now espouse as the theologically justified and acceptable position. Gray writes that Christians who espouse the ethic of stewardship seem to be saying:

“Yesterday we interpreted dominion as domination. We see now that was a mistake. But we do *not* repent of the illusion of dominion. We are still secure in our conviction that we have been given by God a primary place of authority and control as humans. But *now* we will wield that authority with *care*. We will be good stewards of the world entrusted to us. Tomorrow our hearts will be pure, and we’ll do it right!” (Gray, 1994:26-27)

Gray therefore concludes:

Stewardship is still steeped in hierarchy and paternalism. It takes

for granted that we *know* what is right. Stewardship assumes that we both perceive and understand the intricate web of life that is complexly organised into ecosystems – of which humans are constituent parts. (Gray, 1994:27)

Bearing the above in mind, it seems that the Christian concept of stewardship has to be re-examined. A radical transformation of our Christian ideas about creation and our place in it needs to take place. Transformed Christian environmental ethics may not concur with biblical texts (especially in the Old Testament) about humans' relationship with their natural environment. However, it has long been recognised that religious fundamentalism (in any faith) leads to reactionary, oppressive and unjust attitudes, policies and practices. The biblical texts have to be critically examined and put into their context. Furthermore, we must be prepared to acknowledge and accept that certain texts are bound by their particular historical and cultural contexts and can no longer be used to formulate policy, determine practice or as justification for present-day attitudes and approaches.

In a transformed, non-fundamentalist Christian approach, another theological question arises. Is it possible to sustain a doctrine of the salvation of humankind apart from the natural world in which we find ourselves? This question is important because we cannot continue to cling to the narrow interpretation of salvation which is somewhat facetiously referred to as 'pie in the sky when you die'. Human beings are part and parcel of creation (or nature) and have to be saved in and with the environment in which they exist. The damage that humans are doing to their environment points to the need for the environment to be saved from humankind's destructive activities and therefore humankind's need to be saved from the self-destruction that is a consequence of environmental destruction.

These are the issues I hope to address in this assignment. Biblical texts which appear to give divine sanction for the despotic rule over the natural world by humankind are critically examined. This is to determine firstly whether such an interpretation is justified, secondly what the probable context of these texts are, thirdly, if the text *can* be interpreted in the sense of humans dominating their natural environment, whether such an approach is tenable today.

Following this, an examination is made of other biblical passages which indicate a greater concern for the conservation of the earth and its resources. Included in these are passages such as in Leviticus chapter 25, verses 1 - 12, which speak of a Sabbath (seventh) year of rest for the land and the jubilee (fiftieth) year in which the land is left to lie fallow as a time of rest.

Thereafter, because the main purpose of this assignment is to approach environmental ethics from a Christian perspective (although it may diverge somewhat from the standard Christian position), New Testament texts which may be related to environmental ethics are examined. What the New Testament has to say about salvation and reconciliation, and our understanding of these doctrines is an important dimension in the process of reaching the goal indicated immediately above. My wish is that a review of these doctrines may lead to a more holistic understanding of them.

It is hoped that, when these texts and doctrines from the Bible have been critically examined, the reader will not only have a better understanding of them, but also be able to say whether or not we can continue to uphold the approaches to the environment contained therein. Ultimately the purpose of this assignment is to help develop an holistic Christian approach to environmental ethics. In such an approach, we would see ourselves not as above the rest of creation in a position of dominance, but rather as within nature, having to find non-destructive ways of co-existing with the rest of the natural world in a type of symbiotic relationship. Adopting such an holistic approach necessitates a reviewing and perhaps reinterpretation of the doctrine of salvation so as to morally embrace the world as a whole and not just humankind.

Of course, the litmus test of any ethics, environmental or otherwise, is its application. Is it feasible, is it viable, will it work?! If applied how will it impact on daily life in present-day society? What policies and practices will have to change in accordance with the insights of these ethics? It is my hope that there may be some clarity concerning the above questions before the conclusion of this essay.

2. Texts from Primeval History in the Bible

2.1. Texts from the Priestly (P) Creation Story (Gen.1: 1– 2:4a)

In Genesis 1:26 and 28, the verses quoted in the introduction of this paper from the P (priestly) creation story, the authority is given by God to humankind to “have dominion over” all living things. The Hebrew word which is translated as ‘have dominion over’ is a form of *rādāh* which is literally to tread with the feet, as in the treading of grapes in a wine-press. (cf. Joel 3:13) It has therefore a very definite connotation of subjugation and is used in the figurative sense to mean to rule over. The book of the prophet Ezekiel uses the same Hebrew word in the context of oppression: “ ... with force and harshness you have *ruled over* them.” (Ezek. 34:4)

Genesis 1: 28 furthermore contains the command, “Be fruitful and multiply, and fill the earth and *subdue* it ... ” The Hebrew word translated into the command ‘subdue’ is derived from *kābaš* meaning literally to trample under foot according to Gesenius’ Hebrew Lexicon to the Old Testament. Again it is used figuratively to portray subjection and is used elsewhere in the Old Testament to indicate the subduing of enemies or hostile territory. It is used in the book of Numbers: “ and every armed man of you will pass over the Jordan, before the Lord, until he has driven out his enemies from before him and the land is *subdued* before the Lord ... ”. (Numbers 32:21-22a) Jeremiah 34:11 uses a derivative of the same Hebrew word in the context of enslavement of people: “ ... and brought them into *subjection* as slaves.”

From the etymology of the relevant words in these verses then, there appears to be little doubt as to the intention of the P writers, and that is to portray that humankind has divine authority to lord it over the rest of the created order, even harshly if needs be, to the extent of enslavement.

It is generally accepted by Bible scholars that the story of creation in Genesis 1: 1-2:4a is the work of a school of Judaeen priestly writers (P), and had its origins in Babylonia during their exile to that country following the conquest of Judah by the Babylonians under Nebuchadnezzar. (2 Kings 25) It is loosely structured along the lines of the Babylonian creation myth, *Enuma Elish* (“When on high” – the opening words of the myth). More to the point, it was written *in reaction to* the *Enuma Elish* which portrayed the creation of the heavens and the earth as resulting from the intrigues and violent clashes of a pantheon of gods. First and foremost it is a theological statement

of monotheistic belief, namely that there is one God by means of whose word all that is was created out of nothing.

Secondly, it has the characteristic purpose of myth in the Old Testament, which is to attempt to explain from a theological standpoint, the world as it is perceived by human beings. The authorisation given by God in the P creation myth to “have dominion over” and “subdue” the earth and all living creatures is an attempt to explain what appears to be an advantage over other creatures that humans have by virtue of their intelligence and ability to reason. This ability was being used to harness and exploit nature and other living creatures for the benefit of humankind, such as in agriculture and animal husbandry.

There follows from the wonders and consistency of times, seasons and climate, and the intricate workings of the natural world that the Creator-God has supreme intelligence and wisdom, and is in ultimate control of all that ‘he’ has created. Because human beings have intelligence and can exercise partial control over the natural world, it is deduced that we possess this characteristic of reason because we have been created in the image of God, and have been given this ability so as to share in the authority of God. Human beings thus have, on this view, a delegated authority, much as the ancient kings of Israel who supposedly ruled on God’s behalf in what was viewed as ultimately a theocracy.

Certainly in the P creation story, there is on the surface little to suggest that stewardship, the responsibility of humans to care for the earth, its resources and their fellow creatures, is what humankind is called to. An impression of freedom to exploit is conveyed by Gen.1:26 and 28 – the impression that the rest of the created order is there, with little restriction, for the benefit of humankind. Only in verses 29 and 30 does there seem to be some restriction – a call to vegetarianism. This could be explained by later redaction of the original Genesis narrative, as Attfield seems to suggest:

Only after the Fall and the Flood were human beings authorised to eat flesh, as if the society which transmitted and edited the Genesis narratives was uneasy about meat-eating and sensed that special justification was needed. (Attfield, 1983:43)

2.2 Genesis 9: 1-3

In the beginning of this chapter of Genesis the priestly theme of subjection of the earth by humankind is reiterated. Noah and his family and the animals housed in the ark landed safely after the flood and disembarked on dry land after the flood waters had receded. God blesses Noah and his family with fecundity and their domination over the animal world is pronounced. Verse 2 undoubtedly conveys an image of humankind not only as subduers, but as harsh overlords:

The fear of you and the dread of you shall be upon every beast of the earth, and upon everything that creeps on the ground and all the fish of the sea ...

Furthermore, in the last part of this same verse, humankind seems to be given unrestricted licence to exploit: “ ... into your hand they are delivered.” This statement has the ring of an oppressor–victim relationship.

In addition, (as noted in 2.1 above) the apparent restriction of humankind to a vegetarian diet which may be discerned in the P creation story, specifically in Gen.1:29, no longer holds:

Every moving thing that lives shall be food for you; and as I give you the green plants, I give you everything.

2.3 Texts from the Yahwist (J) Creation Story (Gen. 2:4b - 24) and Gen. 3 (The Fall)

The J version of creation, although (according to some Bible scholars) having an earlier origin than the P creation myth, can perhaps lay greater claim to promoting stewardship of the earth and its resources. In this story, the man is created first and then the garden of Eden in which the man is subsequently placed. According to Gen. 2:15, the man is put in the garden of Eden “to till it and keep it.” John Gray writes (1982:35):

In the myth *enuma elish* it is emphasised that man was created for the service of the great gods, to manage their estates and liberate them from drudgery. This tradition is surely reflected in the creation of man (Hebrew *'adam*) to cultivate the Garden of Eden (Gen 2:15).

The Hebrew word translated as “keep” is *šāmar* and in the Hebrew has the meaning of watching over, guarding, keeping safe, preserving – definitely pointing to stewardship. Man is allowed to work the land (“till it”) obviously for his own benefit, ie, through farming, but the responsibility is also placed on him to preserve it. In other words, the concept of the sustainable exploitation (in the non-pejorative sense of the word) of the earth is an ancient one.

There is a picture in the J creation myth of humankind in a close and harmonious relationship with the earth and other living creatures, both flora and fauna. In fact, all have the same origin – formed of the earth:

Gen. 2:7 – “... then the Lord God formed man of dust from the ground.”

Gen. 2:9 – “... And out of the ground the Lord God made to grow every tree that is pleasant to the sight and good for food ... ”

Gen. 2:19 – “So out of the ground the Lord God formed every beast of the field and every bird of the air ... ”

This oneness with all living creatures is further emphasised in the last verse of Genesis 2, verse 25: “And the man and his wife were both naked, and were not ashamed.” Here we see human beings portrayed as having an animal-like innocence, unaware and unheeding of their nakedness.

An impression is created that this is how God intended ‘his’ creation to be, and then the harmony is destroyed as we read in Genesis 3, the story of ‘The Fall’. The story of ‘The Fall’ is meant to explain how human beings lost their animal-like innocence and ignorance which they supposedly once had, and concurrently gained all-embracing knowledge (by eating from the “tree of the knowledge of good and evil” – prohibited by God). It explains how human beings came to realise that they ought to cover their nakedness (nakedness being something shameful to the ancient Hebrews who transmitted this narrative). Furthermore it explains labour in childbirth, snakes’ mode of locomotion, human vs snake enmity, hard toil in agriculture – all as consequences of ‘The Fall’.

Notwithstanding the above, one can also read it as an allegory which has environmental significance. The command of God not to eat of the tree of knowledge of good and evil may be

interpreted as representing the laws of nature. Therefore actions perpetrated by humans in contravention of the laws of nature destroy the harmony between human beings and their natural environment, and, in fact, place them over against each other in an adversarial relationship. A barrier is created so that human beings no longer see themselves as part of nature, ie, as ‘natural’, as much a part of the environment (creation) as the flora and fauna surrounding them. Ernst Conradie sees The Fall as an image of the alienation (“vervreemding”) that sin brings between humans and their world, alienation which has given rise to our ecological crisis.

Volgens Genesis het die gevolge van die sondeval al hoe wyer uitgekring – totdat die hele skepping in die proses meegesleur is.

In ons eie tyd kan ons dit duidelik sien in die ekologiese krisis waarmee ons te kampe het. (Conradie, 1996: 65-66)

Conradie (1996:66) sees in the story of The Fall the following alienations: between humans and their bodies (shame at nakedness); between humans and animals; between people and plants; between people and the land and their labour; between human beings and the beauty of nature (Adam and Eve are driven out of Eden, paradise).

2.4. P Creation Myth and Environmental Ethics

The later, or Priestly, creation story containing divine sanction given to humankind to ‘subdue’ the earth and all living creatures appears to give free rein to human beings to exploit the earth and its resources, living or inanimate. It appears to sanction a ‘ruthless developer’ approach to the environment – all of creation outside of humankind is there for our benefit to be used (and even abused?!) as we please. As indicated earlier, the etymology of the Hebrew used certainly disposes one to arrive at this conclusion.

However, to the ancient Hebrew mind, this type of mandate, ie, “to have dominion over” (Gen.1:26), would be similar to that given to the ancient kings of Israel. Ancient monarchical Israel was regarded as being a theocracy – God ultimately was the ruler: the king ruled on behalf of God and was answerable to God for the manner in which he exercised his authority. Harsh rule, oppression and ignoring the needs of the suffering and most vulnerable in society was not condoned. This is clear from passages such as the following from the book of the prophet Ezekiel:

Ho, Shepherds of Israel who have been feeding yourselves!

Should not shepherds feed the sheep? You eat the fat, you clothe

yourselves with the wool, you slaughter the fatlings; but you do not feed the sheep. The weak you have not strengthened, the sick you have not healed, the crippled you have not bound up, the strayed you have not brought back, the lost you have not sought, and with force and harshness you have ruled them. (Eze. 34:2b-4, RSV)

The authority given to 'man' to rule over the rest of the created order should probably be identified as a type of benevolent despotism. This therefore tempers somewhat the picture of unrestricted exploitation of the earth and its creatures regardless of harm done. It is more the role of the good shepherd who, as John Passmore writes (1980:9):

... takes care of the living things over which he rules for their own sake, governing them not with force and with cruelty but in the manner of the Good Shepherd, anxious to preserve them in the best possible condition for his master, in whose hands alone their final fate will rest.

Use of the Hebrew words for treading 'down' and 'trampling underfoot' may simply be a figurative way of expressing rule or 'dominion' without necessarily intending to indicate or promote harshness or oppression in the exercise of authority. Alternatively, or more probably additionally, it may, as usually is the case with ancient myth, convey the experience and perception of life of the writer/s. This would also be the case in Gen. 9:1-3 where the writing merely conveys what has been observed: that animals 'fear' humankind, especially wild or non-domesticated animals which tend to flee at the approach of human beings.

An aspect of the P creation story which would also mitigate any harshness or oppression implied in the injunction to 'have dominion' or 'subdue', is the theme throughout of God's pleasure and satisfaction with his handiwork: "And God saw that it was good". (Gen. 1:9, Gen. 1:21, Gen. 1:25, RSV) Human beings created in the image of God, should be able to share in God's appreciation of his creation as being good. It follows therefore that ruling over God's creation with a delegated authority implies the responsibility to uphold the goodness and integrity of the whole created order. It may also be noted here that the goodness of creation is established *before*

the creation of human beings, a feature of this creation myth which points to the intrinsic value of nature, ie, its own value distinct from any value which human beings may ascribe to it. While philosophers debate the validity of speaking about intrinsic value of the natural environment, it is certainly not a problem for the theologians responsible for the doctrine in the P creation myth.

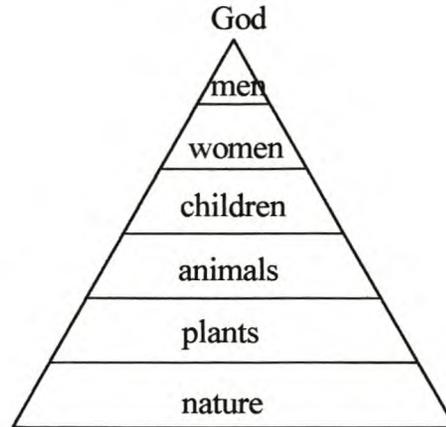
Lastly, the context at time of writing may serve to explain the need to portray humankind as having a position in creation “little less than God” (Psalm 8: 5) so that we have “dominion over the works of [God’s] hands” (Psalm 8: 6). As already indicated above the P creation story is written in reaction to the Babylonian creation myth, *Enuma Elish*, in which the ‘bad guys’, ie, “ ... the forces of primordial chaos ... under the championship of Tiamat ... ” (Gray, 1982:33) rise up against the ‘good guys’ headed by Marduk “ ... the champion of the divine court.” (Gray, 1982:33) Marduk is victorious and conquers the allies of Tiamat and Tiamat herself is split in two to form the heavens and the earth.

The priestly creation myth clearly espouses monotheism and portrays God as creating *ex nihilo* (out of nothing) by his spoken word. God is separated from his creation: thereby emphasising that creation itself is not to be worshipped, only the Creator. Humankind is given regency over the rest of the created order – being created in the image of God sets human beings above the rest of the created order, ie, second-in-command to – and acting for – God. Perhaps this may be viewed as the first sign of ontological thinking in an age of mythology – humankind disengaging itself from the ‘natural’ world around it.

This is the origin of what was called in the Middle Ages the Great Chain of Being, described thus by Elizabeth Dodson Gray (1994:21):

... a cosmic hierarchical pyramid of value ... a pyramid with “Man” on top; a pyramid based on the illusion that one can rank the diversity of real life, putting that which is presumed to have more value “up” and in dominion over that which is perceived to be of less value and thus “below”.

Gray (1994: 22) illustrates this pyramid of value with the following figure:



This kind of hierarchical ranking which in the Judaeo-Christian heritage is derived essentially from the P creation story and scriptures based on it (such as Psalm 8), leads to an environmental ethic of domination over nature albeit with a mitigating attitude of benevolence. Ultimately, if we adhere to this scheme of things, because of our perceived dominion, the welfare and even the non-essential wants of humankind will always take precedence over the welfare of nature (nature defined as the rest of the created order outside of humankind and what we have manufactured). With the ever-increasing demands of the consumer society, benevolent despotism with regard to nature becomes just plain despotism, or harshly exploitative despotism.

I therefore propose that even with the mitigating factors mentioned in favour of the dominion given to 'man' in the P creation myth, we cannot accept this relationship as the basis for an environmental ethic in these times.

2.5 J Creation Myth and Environmental Ethics

This story, unlike the priestly one, does not attempt to give an account of the creation of all that exists, but rather it is the story of the creation of man ("formed ... of dust from the ground" Gen. 2:7) and the subsequent creation of the Garden of Eden or Paradise in which man is placed. Although seemingly more primitive, it yet makes a more acceptable theological statement about man's relationship with his natural environment. In the theology of the J writer/s, God's original intention and plan was that 'man' should live in harmony with the rest of creation as God's servant and steward, working the land and caring for it. Paradise, or the Garden of Eden, represents the ideal situation of 'man' in a fully harmonious relationship with Creator and creation. The innocent nakedness of man and woman would seem to indicate parity with other

living creatures who are all unaware of being unclothed; in fact, being non-rational, are unaware that there can be any other mode of being than the way they are.

However the semblance of parity is marred for two reasons. Firstly the man is put in charge, so to speak – given the mandate to ‘keep’ which, as indicated earlier, translates the Hebrew word *šāmar* meaning to guard/watch over/preserve. Of course, this immediately suggests a position of seniority, if not superiority. Secondly, the animals, are brought to the man to name, which he proceeds to do. In ancient Hebrew thought, knowing the name of another was a means by which power may be exercised over the other.

Therefore, even in this idyllic and seemingly ideal picture of ‘man’ at one with nature, there is an indication of ‘man’ having authority over the rest of the created order. But, unlike the priestly creation story, it is more of a responsibility to care for, to look after nature. In other words, ‘man’ exercises stewardship but at the same time works the land.

The environmental ethics indicated by the Yahwist creation myth can be categorised as stewardship and sustainable exploitation. Mandated by God to “till” and “keep” the Garden of Eden, ‘man’ is thus authorised to exploit (in the non-pejorative sense of the word) but also to preserve/care for, which, in the agrarian society from which this story probably originated points to farming methods which do not cause unnecessary and irreparable harm to the ecosystem in which they are practised: in today’s environmental language – ecologically sustainable.

3. More Texts from the Old Testament with Special Reference to the Concept of Rest for the Earth

The concept of rest for the earth is prefigured in God's rest after creation in the P creation story: "And on the seventh day God finished his work which he had done, and he rested on the seventh day from all his work which he had done." (Gen. 2:3) This motif (of God's rest) is in turn related by D.F. Olivier to the concept of humankind being created in the image of God:

The motif of God's rest (and its meaning for a Christian holistic view of reality faced with the challenge to reconsider seriously the relationship between human and non-human survival within the context of human cultural activities) cannot be fully understood without paying attention to the concept of humanity having been created in the image of God. (Olivier, 1987: 107)

After examining various texts in Old and New Testament, Olivier concludes that the concept of human beings being created in the image of God is a relational one:

The *whole* individual, in all his living is in the image of God and is called to be such. The concept ... thus denotes an all-embracing relationship with God ... It is truly a holistic concept in which each facet of human existence, in its interrelatedness and interdependence with others, is of importance and could not be missed without marring our human experience as well as the special relationship with God which is part of a holistic experience of reality. (Olivier, 1987: 110)

Although it has long been acknowledged and accepted that being created in the image of God has nothing to do with outward appearance, the interpretation and teaching of this concept in catholic doctrine has been confined mainly to intellectual and spiritual characteristics. The relational aspect has not been brought to the fore as Olivier has done. In *An Anglican Prayer Book 1989* (London, Collins Liturgical Publications), the concept of the image of God in human beings is explained thus:

What does it mean to be created in the image of God? It means

that we are free to make choices: to love, to create, to reason, and to live in harmony with creation and with God. (1989:423).

We often focus on the “to love, to create, to reason” and the relational aspect of living in harmony with God, but ignore the aspect of harmonious relationship with our natural environment (‘creation’). Yes, it is also faithfully taught and convincingly preached that we are called to live in love, compassion and harmony with our fellow human beings (“You shall love your neighbour as yourself”), but there is nowhere near the same attention given to our relationship with our nonhuman neighbours and the ecosystems we find ourselves in. Olivier’s concern, therefore, for the relational aspect contained in the ‘image of God’ concept is very relevant to the environmental ethics which people in the Judaeo-Christian tradition may hold. Olivier (1989:110-111) emphasises this:

... the responsibility rests upon humanity to so relate to non-human reality that the relationship with God is enhanced. ... Is the non-human reality not also one of the spheres in which God reveals his presence and existence and communicates with humanity? Humankind is called upon to so integrate and interact with God-given reality that the greatest possible harmony within all facets of reality can be realised.

The P creation story explains the institution of the Sabbath, a day of rest which became an integral part of the faith of Judaism. Sabbath rest, in emulation of God in creation, behoves humankind, created in the image of God. God’s rest in creation is also, as Ernst Conradie proposes, a symbol of God’s presence in creation, an idea which concurs with the above-mentioned contention of Olivier that the natural world is one of the spheres in which God’s presence is revealed.

Op die rusdag rus God saam met die hele skepping. Die skeppingswerk van die eerste ses dae mag die indruk wek dat God en die wêreld apart van mekaar verstaan moet word. In die rus van die sewende dag word dit egter duidelik dat God teenwoordig is in en by die wêreld. ... God vind blykbaar behae daarin om die rusdag saam met die hele skepping te geniet. (Conradie, 1994:50)

It goes without saying that humankind needs at least a weekly day of rest, perhaps now more than ever before, especially in the hurly-burly of modern, industrialised, urban society. Rest for the natural environment, however, is not such an easy concept to propose and implement. There is a sense in which we cannot speak of nature resting because of its uninterrupted cycles and seasons. Winter may appear to be nature's resting time as some flora and fauna cease growth and visible activity, but there are processes that continue unabated in nature.

The people of Israel in Old Testament times at least gave the *land* a 'sabbath' from farming activities:

... When you come into the land which I give you, the land shall keep a sabbath to the Lord. Six years you shall sow your field, and six years you shall prune your vineyard, and gather in its fruits; but in the seventh year there shall be a sabbath of solemn rest for the land, ... ; you shall not sow your field or prune your vineyard. ... it shall be a year of solemn rest for the land. (Leviticus 25:2b-5, RSV)

No doubt this is good farming practice, ie, to give the land a time to recover and to replenish itself naturally after six years of crops removing nutrients from the soil. These days, with intensive farming methods, it is necessary – and possible because of advanced science and technology – to replenish the soil's nutrients with artificial fertilizers and other additives so that the soil may continue to be productive in spite of the debilitating effects on the soil of planting the same monoculture year after year. Of course, this practice has the ecologically detrimental side-effect of polluting the groundwater and rivers and streams with nitrates and other chemicals that are ploughed into the ground. It in fact starts a chain reaction of environmental degradation, killing off organisms in rivers and streams and causing havoc in other ecosystems such as estuaries.

In addition to the 'sabbath year' of rest for the land the people of Israel also instituted a jubilee year. After forty-nine years of working the land, the following shall be observed according to the will of God:

A jubilee shall that fiftieth year be to you; in it you shall neither sow, nor reap what grows of itself, nor gather the grapes from the

undressed vines. (Lev. 25:11, RSV).

Along with this injunction goes the return of property (land) to the family that originally ‘owned’ it. The word ‘owned’ has been used, but the concept of land possession was one in which it was believed that God ultimately owned the land, and those who possessed landed property were but caretakers of it for God. This is clear in Leviticus 25:23-24:

The land shall not be sold in perpetuity, for the land is mine; for you are strangers and sojourners with me. And in all the country you possess, you shall grant a redemption of the land.

The status of land as private property is dealt with at length in the article by Gary E. Varner, ‘The Eclipse of Land as Private Property’ in F. Ferré & P. Hartel (Eds), *Ethics and Environmental Policy*. Varner draws particular attention to the restrictions placed on private owners’ use of their own land by environmental legislation, and the legal implications and complications thereof. For the purposes and scope of this paper it is not feasible to delve even superficially into the content of his article. Suffice it to say that arguments he advances show that, “... there is a deep tension between the civil and common law traditions and the current groundswell of support for ecological sustainability.” (Varner, 1994:185) Varner points to an increasing tendency, because of this groundswell of support for ecological sustainability, to view natural ecosystems, their contents and processes as public property and this tendency consequently erodes the principle of owning land as private property.

The notion that ecological processes ought to be regarded as public goods like air, oceans, and wildlife, which all individuals have a right to use, allows us to construe environmental regulation as an exercise of police power, as designed to prevent harm. But what is really left of the concept of land as private property once we have done this? Increasingly, taking an ecological view of land forces us to treat it as a public resource that individuals hold only in a stewardship (or trust) capacity. (Varner, 1994:158)

All of this indicates how close we are to returning to the concept contained in Leviticus 25:23 and mentioned earlier, “The land shall not be sold in perpetuity, for the land is mine ...”. Of course,

this concept of people as caretakers – rather than owners – of the land in their possession may not be one held with any conscious theological conviction, especially in those societies where Christianity appears to be on the decline. The purposes of environmental preservation would still be served, or to put it in more theological terms, the integrity of God’s creation would nonetheless be afforded the necessary protection. Therefore one can but hope and pray that the following prophetic pronouncement of Varner may be realised: “ My conclusion is that the eclipse of land as private property is near at hand.” (1994:158)

Should it come to pass, the “eclipse of land as private property” would do much more than justify or reinforce long-held religious views about land-ownership. Environmental legislation could be enforced without the constant threat of legal action being taken against the state on the grounds that such legislation infringes the rights of landowners. In our country it would certainly help with the redistribution of land so that the present inequitable situation arising out of our particular historical circumstances may be redressed. With regard to ‘rest’ for the land it may not be feasible in these times to revert to the Old Testament levitical concept of the sabbath and jubilee years. However, ‘rest’ for the land and our ecosystems would surely these days mean relieving them of the destructive burden of chemical pollution. This would entail organic farming methods as well as crop diversification and rotation (a change is as good as a holiday?!) to avoid the debilitating effects on the land of year in and year out monoculture cultivation.

A rethink of farming – allocation of farmland and farming methods especially – is needed. In order that the abovementioned methods of ‘resting’ the land and at the same time saving our ecosystems may be facilitated, smaller farming units would in all probability be more suitable than the huge expanses of land which farmers own in this country. The notion that bigger is always better, and more advanced technology is always desirable, needs to be challenged. Agricultural land especially needs to be removed from private ownership and held in trust for the people of the country by its democratically elected government. Land is then leased for set periods at nominal rates to farmers on condition that farming proceeds according to environmentally-friendly methods which are legislated. Having state-owned agricultural land would also allow for control over which crops are grown, so that the country can be assured of the production of sufficient staple foods such as maize and wheat, instead of having to import these. It seems, for instance, that wine farms proliferate and new vineyards are planted when staple food production at times cannot meet the

needs of our people.

Of course, there are a number of other forms of environmental degradation and pollution that the natural, non-human world also needs 'rest' from. These, such as air pollution and unsustainable exploitation of mineral and other natural resources (should not mining and fishing, for example also be nationalised?) are well documented by concerned environmentalists. Stephen H. Schneider (1994: 593) writes about the 'greenhouse effect' (global warming) on the Earth's climate caused by atmospheric pollution arising from the burning of fossil fuels:

The primary culprit for the buildup of greenhouse gases in Earth's atmosphere is the burning of fossil fuels: coal, oil, and gas. ... An inevitable by-product is carbon dioxide (CO₂). CO₂ is a very effective greenhouse gas. Right now there is incontrovertible evidence that there is 25% more CO₂ in the atmosphere than there was a century ago.

Melanie Gosling, a writer on the environment for the Cape Argus, names in the Cape Argus of 18 July a number of ways in which the bio-diversity of South Africa is being threatened. She ends the litany of devastation with the following observation about the economically important fish stocks:

Along the coast, 27000 fishermen harvest 600 000 tons of fish a year, generating R2 billion. Many stocks are being well managed, but linefish, perlemoen and crayfish are being hammered.

What I am arguing for here is an acceptance of a broader interpretation of the concept of 'rest' for the earth. It is on this broader interpretation a relieving of the biosphere of the intolerable burden of pollution and environmental degradation caused by human greed, irresponsible attitudes towards the natural non-human environment, and what we humans often euphemistically label as progress. Much of what humankind accepts as progress for itself results in retrogression/degradation for the natural environment.

In the Christian faith we profess God as Creator, as eternal source of life, or, as the theologian Paul Tillich would have it, "... the ground of all being is *God*." (1949:63) We accept our creaturely status, but deduce mainly from our rational and spiritual characteristics that we are

created in the image of God. In the Judaeo-Christian tradition this has been interpreted as superiority over other species and licence to rule the earth (“... thou hast made him little less than God, and ... has given him dominion over the works of thy hands ...” – extract from Ps. 8, RSV). Even in evolutionary theory there is the tenet that human beings are a higher/superior species because of brain development and capacity. Elizabeth Dodson Gray has this to say about this hierarchical ranking illustrated earlier in this essay by her diagram of the pyramid of value:

We never ask ourselves if we, as a species, have the best eyes or ears or sense of smell or fleetness of foot, ... We never ask ourselves if what humans do is as remarkable as the photosynthesis plants do. Instead, we have convinced ourselves that big brains are the mark of a superior species. But recent research has revealed that cetaceans (whales, dolphins, and porpoises) have an equally large and convoluted brain cortex. ... Both the Judaeo-Christian religious picture of cosmic hierarchy and the scientific evolutionary picture of species hierarchy manifest the self-serving nature of ranking diversity. Always it is Man, the ranker, who just happens to end up at the top of his own ranking! (Gray, 1994:22)

Perhaps a lot more humility is required in the face of the extent of bio-diversity in creation and the uniqueness of each species. Surely much would be gained in the struggle to preserve this bio-diversity if human beings were to see themselves as within creation rather than above it – as part of the natural world rather than ruling over it. Gray uses the word “attunement” in her description of the attitude we should have towards our natural surroundings. We can only become attuned to what we view as the natural world once we see ourselves as part of it and develop a sense of empathy with it. Aldo Leopold, (1995:143) in his concept of a Land Ethic, writes that we must change:

... the role of *Homo Sapiens* from conqueror of the land-community to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such.

Only as this becomes the attitude with which we approach the rest of creation will we develop the ability to attune ourselves to it, *fit in* symbiotically, as well as discern the

‘exhaustion/overburdening’ of the earth where and when it occurs and its consequent need for ‘rest’.

Psalm 104 is a wonderfully poetic song of praise to God for the diversity and beauty of ‘his’ creation which also emphasises ‘his’ care for *all* creatures and clearly contradicts the notion that everything in creation exists solely for the benefit of humankind. The following extracts illustrate the latter point:

Thou makest springs gush forth ... they give drink to every beast of the field. ... By them the birds of the air have their habitation ...
Thou dost cause the grass to grow for cattle, and plants for man to cultivate. ... (Extracts from verses 10, 11, 12, and 14, Ps. 104, RSV)

In the midst of all the wonderful poetry about the natural world of God’s creation is sandwiched verse 23, “ Man goes forth to his work and to his labour until evening.” Here ‘man’ is not treated as above or outside of the rest of creation but ‘he’ and ‘his’ activities are portrayed as part of the scheme of things *in* God’s creation.

Robin Attfield draws attention to Psalm 148 which expresses “admiration of God’s handiwork and the praise in which all his creatures join ... ” (1994:24). Here too humankind is not given any special place in the praises sung by all creation to the Creator. They are simply called to praise the Creator along with the rest of creation such as, “ Mountains and all hills, fruit trees and all cedars! Beasts and all cattle, creeping things and flying birds!” (Ps. 148: 9-10, RSV)

In the attitude of wonder at and praise for the beauty and diversity of our natural surroundings, its intricate workings and the uniqueness of each species, lies the beginning of – and key to – respect for nature and commitment to its preservation. We need to distance ourselves from an inflated view of our own importance in the totality of the scheme of things in God’s creation. Ernst Conradie (1996:43) concludes in similar vein when commenting on the concept of the Earth as one living organism (the “Gaia” hypothesis developed by Lovelock and Margulis):

Die belangrike punt wat hiermee na vore kom is, dat die natuur nie bloot deel is van die mens se geskiedenis nie. Die mens vorm eerder ’n deel van die natuur se geskiedenis. Maar die mens is

slegs 'n klein, vlietende deel daarvan. Die Nederlandse teoloog Abraham van de Beek sê die mens is maar eers op die laat middag van die sesde skeppingsdag gemaak (na die skepping van die diere). 'n Mens kan byna sê die mens is na God se “middagslapie” gemaak.

Accepting scientific calculation of the age of the Earth and how many millions of years ago non-human life was present, then humans are really ‘Johnnies come lately’ as far as life on earth is concerned. Ernst Conradie (1996:43) records these words of Sallie McFague:

On the universe’s clock, human existence appears a few seconds before midnight. This suggests, surely, that the whole show could scarcely have been put on for our benefit; our natural anthropocentrism is sobered, to put it mildly.

If anything, a ‘God’s eye’ view should be striven for, ie, a view from eternity, so that we as human beings may see things in true perspective.

4. Has the New Testament Anything To Say?

There are passages in the New Testament, in the gospels particularly, that testify through words attributed to Jesus that God has great care and concern for non-human creation, even those numbered amongst the smallest and probably seen by humans to be of little value.

Are not two sparrows sold for a penny? And not one of them will fall to the ground without your Father's will (Matthew 10:29, RSV)

Luke's gospel has a slight variation of this saying of Jesus:

Are not five sparrows sold for two pennies? And not one of them is forgotten before God (Lk. 12:6, RSV)

Although both versions continue with Jesus adding, "... you are of more value than many sparrows." (Matt. 10:31, Lk. 12:7), pointing to a hierarchy of value, Jesus reveals that God values even the humblest of creatures. In Matt. 6:26 Jesus also expresses these sentiments about God's care for birds: "... they neither sow nor reap nor gather into barns, and yet your heavenly Father feeds them." Again, this is contrasted with the greater value God places on human beings. Notwithstanding this contrast in value, the point is that to God these humble creatures have value in themselves and not only as they may benefit humankind.

It is not only fauna but also flora which God values independent of their value or benefit to humankind:

Consider the lilies of the field, how they grow; they neither toil nor spin; yet I tell you, even Solomon in all his glory was not arrayed like one of these. (Matt. 6:28b - 29, RSV cf Lk.12:27)

The use of this illustration shows that Jesus had a strong appreciation of the beauty of nature. When Jesus was involved in a confrontation with some Pharisees and teachers of the law concerning healing a man on the Sabbath, he used an example of care for domestic animals, again to contrast it with care which one should have for the welfare of humans:

And he said to them, "Which of you having a donkey or an ox that has fallen into a pit, will not immediately pull him out on the Sabbath day?" (Lk 14:5, RSV)

It is interesting to note that some ancient authorities record “a son” instead of “a donkey” in this passage. If “a son” is the correct reading, then it would certainly indicate a more egalitarian approach to the value of human and non-human creatures. (RSV, REB and NIV and The Jerusalem Bible all have “a son”)

In Luke 15, in the trilogy of parables which Jesus tells about God’s concern for the ‘lost’ one or sinner, (lost sheep, lost coin, lost/ prodigal son), the first one deals with the shepherd who leaves ninety-nine sheep to search for the hundredth one which is lost. Although this parable is told with the particular purpose of demonstrating God’s love for the ‘lost’ person or sinner, Jesus’ choice of this story as illustration points to a love for the animal which far exceeds in proportion its instrumental value to the shepherd:

... Jesus regards with obvious sympathy the painstaking retrieval by a shepherd of the hundredth sheep, an act with slight benefit (if any) to the shepherd.
(Attfield, 1994:26)

This point is further bolstered by the ‘Good Shepherd’ passage in John 10, especially perhaps in verse 11: “The good shepherd lays down his life for the sheep.” (RSV) Notwithstanding the ‘spiritual’ intention of these sheep-shepherd passages, we can agree with Attfield (1983: 29) that “... Jesus understood and sympathised with disinterested care of animals.”

There are, of course, passages which pose difficulties for – in fact, seem to contradict – the picture of Jesus (and hence God) as one who has great love and concern for plant life and animals. Mark 5: 1-20 (cf Matt. 8: 28-34 and Luke 8: 26-39) relates the story of Jesus in the territory of the Gerasenes (or Gadarenes) driving a legion of “unclean spirits” out of a demoniac and sending them into a nearby herd of approximately two thousand swine which consequently rushed over a cliff to drown in the sea. A passage which seems to portray Jesus in destructively despotic mode over against flora is the story of the cursing of the fig tree. (Mk. 11:13 -14, 20-24). Here Jesus curses a fig tree for not providing fruit to satisfy his hunger even though it is not fig season, and the fig tree subsequently withers.

It is not easy to interpret miracles recorded in the gospels. One school of thought mentioned in Dennis Nineham’s commentary on the Gospel of Mark proposes that in the story of the healing

of the Gerasene/Gadarene demoniac, the portion about the demons entering the swine (Mk.5:11-13) may be “ ... a ‘popular’ story of a Jewish exorcism in a heathen land which existed independently and has simply been attached to Jesus.” (Nineham, 1963:154). Attfield commends the view of Stephen Clark that behind the attachment of the swine to the story of the healing of the demoniac is hidden a parable. (Attfield, 1983:30) One certainly has to concede that there must be symbolic significance in the use of swine in the story, pigs being to the Jews unclean animals. In all probability it was added to the story of Jesus’ exorcism of the demoniac to signify that the divine intervention of Jesus results in, “... the banishing from the land of what is unclean.” (Nineham,1993:154). It is probably therefore a legend attached to the healing ministry of Jesus and does not present a true picture of Jesus’ attitude towards animals.

The cursing of the fig tree depicts Jesus as unreasonable, harsh and petulant, cursing the tree for not bearing fruit even though figs were not in season. This is a portrayal of Jesus very much at odds with the picture of Jesus’ character developed throughout the gospels. Possibly, even probably, this is a corruption of the parable of the barren fig tree related in Luke 13: 6-9, which ends with the words, “ ... if it bears fruit next year, well and good, but if not, you can cut it down.” (RSV)

The corrupted parable became a legend depicting the divine in Jesus because of the belief in God’s power over the realm of nature – power of life and death:

When thou hidest thy face, they are dismayed; When thou takest away their breath, they die and return to their dust. When thou sendest forth thy Spirit, they are created, ... (Ps.104:29-30a, RSV)

While *we* may conclude that the two above-mentioned scriptures are not exemplary of Jesus attitude to animals and plant life, they were used by such as St Augustine, Attfield reminds us, to justify a ruthless attitude towards animals and plants on the part of Christians. Attfield, (1983:30) quotes from St Augustine:

Christ Himself shows that to refrain from the killing of animals and the destroying of plants is the height of superstition for, judging that there are no common rights between us and the beast and trees, he sent the devils into a herd of swine and with a curse withered the tree on which he found no fruit.

Outside of the gospels, one can point to a more sympathetic attitude towards animals than the Old Testament allows. There is, for instance, the,

... annulment of the distinction between clean and unclean animals (Acts 10, 11), and ... [the] abolition of animal sacrifices in a passage (Hebrews 10: 1-18) which speaks with evident distaste of the idea of sins being taken away by 'the blood of bulls and goats.'
(Attfield, 1983:30)

The apparent disdain for the care of animals, and the implication that God does not care about the welfare of animals, contained in 1 Corinthians 9:9 has to be read in the context of the principle St Paul is trying to promote and his allegorical use of the Old Testament. Deuteronomy 25:4, the passage to which St Paul is referring literally means what it says: "You shall not muzzle an ox when it treads out the grain." (RSV) St Paul interprets this allegorically to mean that God expects that 'his' (human) workers must receive the necessities of life (eg. ... "food and drink." – 1 Cor.9:4) from those to whom they minister. Paul's rhetorical question, "Is it for oxen that God is concerned?" may be interpreted not so much as the voicing of an opinion that God does not care about animals, but rather as a statement that God is not referring to oxen in the passage from Deuteronomy 25. We may have reason to believe that disdain or unconcern for non-human nature was not part of St Paul's make-up. Romans 8 contains verses which clearly point this out, eg; verses 21-22:

... 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 together until now.
(RSV)

Therefore, the overall picture conveyed by the New Testament of attitudes towards non-human nature is one of care and concern and appreciation of its value and beauty. St Paul is further vindicated by his inclusive attitude towards the reconciliation which is effected in and through Jesus Christ:

For in him all the fullness of God was pleased to dwell and through him to reconcile to himself *all* things, whether on earth or in heaven, ... (Colossians 1:19-20a, RSV)

With this in mind then, we are constrained to review our traditional human-centred view of the Christian doctrines of salvation and reconciliation and to adjust them to be far more inclusive.

5. “God So Loved the *World* ... ” – Salvation, Reconciliation and the Environment

Salvation according to John 3:16-17:

For God so loved the *world* that he gave his only Son, that whoever believes in him should not perish but have eternal life. For God sent the Son into the world, not to condemn the world, but that the *world* might be saved through him. (RSV)

Reconciliation according to 2 Corinthians 5:19:

God was in Christ reconciling the *world* to himself, no longer holding people’s misdeeds against them, and has entrusted us with the message of reconciliation. (REB)

The Greek word *kosmos*, a form of which is translated in both of the above texts as “the world”, does not necessarily refer only to the people of the world. It is often used to refer to the *whole* world or present order of things – even the whole of the material universe. Christians in both Catholic and Protestant traditions have chosen and cling to a narrow interpretation of *kosmos/world*, and not its all-embracing connotation, so that God’s salvation was seen to be directed towards humankind only. Reconciliation, by the same token, was accepted as being the bringing back of human beings estranged from the Creator into an harmonious relationship with ‘him’.

This is not, however, what the New Testament appears to be saying about salvation and reconciliation. In addition to the above statement of St Paul in 2 Corinthians 5:19, he also writes to the Colossian church:

For in him [Christ] God in all his fullness chose to dwell, and through him to reconcile all things to himself, ... all things whether on earth or in heaven. (Colossians 1:19-20)

Note the double emphasis on *all things* by means of which it seems St Paul wants to leave no room for doubting that the intention of God is salvation and reconciliation through Jesus Christ for the whole of the created order. Yet, nearly 2000 years later, we continue to cling to the narrow anthropocentric interpretation, which Ernst Conradie laments as follows:

In sowel die Katolieke as die Protestante kerk bestaan daar 'n lang en hardnekkige tradisie dat die *mens* die fokus van God se verlossingswerk is. Volgens dié gedagterigting het Jesus Christus gekom om ons as mense van ons sonde (en sommer ook uit hierdie “aardse tranedal”) te verlos. Daarom word Jesus gewoonlik as 'n “persoonlike Saligmaker” voorgelou. Dié (verskraalde) siening sê: die wêreld is nie ons woning nie; op aarde is ons maar net vreemdelinge en bywoners; ons is net pelgrims op reis na die hiernamaalse. Dié uitbeelding is net 'n halwe waarheid! (Conradie, 1996:69)

This approach of Christians to the meaning of salvation and life on earth described above by Conradie, has tremendous implications for the way we treat our natural environment. It has the very strong potential to cause people to view their natural environment as being unimportant. The earth is only an insignificant stage on the way to the all-important fullness of eternal life for which we have been saved. Therefore, the way we treat the earth and non-human life is of little consequence as we pass through this temporary ‘vale of tears’ en route to the heavenly city, the New Jerusalem. One could trace the roots of this mindset right back to the influence of Gnosticism and Platonic thought on the early church. Extreme Gnostic thought labelled the material world as fundamentally evil and went so far as to suggest its creation by a demiurge, a subordinate agent in creation. A.M. Renwick (1958: 33-34) describes this Gnostic speculation thus:

According to the Gnostics the Supreme Being is self-existent, infinitely remote, and unknowable. He is the First Principle but without attributes, and is beyond time and change. The problem for them was how this ineffable Being, whom they called Bythos, could create matter which they regarded as evil, or have anything to do with it. They got over the difficulty by postulating a series of thirty emanations from Bythos, each emanation originating the next in order. When one of these was sufficiently distant on the borderland of light and darkness, he created the world and did it badly. This was the Demiurge or God of the Old Testament who was worshipped by the Jews.

Platonism held that the visible, material world is not the true reality. All that we behold on earth are but inadequate and fleeting copies of the true and eternal realities which are to be found in the realm of ideas:

... Plato believed that reality is divided into two regions. One region is the *world of the senses*, In this sensory world, ‘everything flows’ and nothing is permanent. Nothing in the sensory world *is*, there are only things that come to be and pass away.

The other region is the *world of ideas*, about which we can have true knowledge by using our reason. This world of ideas cannot be perceived by the senses, but the ideas (or forms) are eternal and immutable. (Gaarder, 1995: 74-75)

It is not difficult to see how this thought pattern could lead to destructive environmental practices and unrestricted exploitation of the Earth’s resources. After all, we are only passing through on pilgrimage to the true reality in ‘heaven’. Therefore, whatever we do with nature and natural resources is of little importance in God’s scheme of things, for we are destined to experience the ultimate, perfect and true reality in heaven.

In his letter to the Romans, Paul makes it abundantly clear that the created order is subject to frustration or futility and waits to be delivered from what he calls the “bondage to decay or corruption” (Romans 8:20-21). Furthermore he writes that it was God who “subjected it in hope”. Is this perhaps Paul’s understanding of the priestly creation story: that God subjected the rest of creation to humankind in the hope that we would exercise a benign rule over it? Instead, Paul sees the signs then already of environmental degradation and decay due to ‘man’s’ despotic rule. Therefore the “... whole creation groans and labours with birth pangs...” (Romans 8:22, RSV) to be “delivered from the bondage of corruption...” (Romans 8:21, RSV)

It is noteworthy that Paul writes about ‘creation’ being freed from decay “... into the glorious liberty of the children of God.” (Romans 8:21, RSV) If we read verse 22 of this chapter with verse 23, it is obvious that the “creation” he mentions in verses 21 and 22 is non-human creation. We deduce this because verse 23 reads thus:

And not only *they*, but we also who have the first fruits of the Spirit, even we ourselves groan within ourselves, eagerly waiting

for the adoption, the redemption of our body. (RAV)

Paul therefore puts the whole of creation, non-human and human on equal terms as “children of God” and proclaims that we wait *together* to be released, to overcome futility, to be freed to fulfill the purposes for which we have been created – liberated, all of creation together, into the “glorious liberty of the children of God.” Taking this egalitarianism into consideration reminds us of what has been said earlier in this paper about the environmental lesson behind the story of The Fall. Human beings wanted to eat from the tree of the knowledge of good and evil in order to ‘become like God.’ In so doing they establish themselves as superior to the rest of creation and alienation between them and non-human creation begins, bringing with it environmental degradation.

Salvation, in the light of this and the preceding insights, takes on a new meaning. Humankind cannot be separated from their non-human environment in the plan and working out of salvation. For too long humankind has adopted a strongly anthropocentric stance in their treatment of non-human creation. Our hubris has given us a false sense of security, fooled us into believing that with our science we will always be able to ‘make right’ or compensate, as we head down the ‘broad way’ of environmental destruction. As Christians, we should have heeded Paul’s exhortation in his letter to the Philippians, chapter 2, verse 12, “... *continue* to work out your salvation with fear and trembling.” What does salvation for the *world* mean in the light of the latest scientific predictions that if humankind does not drastically change its environmentally destructive activities and lifestyles, planet Earth faces environmental disaster on an unprecedented scale within the next few decades, with dire consequences for Earth’s inhabitants.

An article by Andrew Donaldson in the Sunday Times of July 14, 2002 bears the headline ‘Time running out for Earth’. It refers to a report released by the World Wildlife Fund (WWF) ahead of the recently held World Summit on Sustainable Development. Donaldson writes:

If mankind continues to exploit the world’s natural resources at the present rate we will have to colonise two planets in outer space within the next 50 years to survive. ... The report states that, since 1999, we’ve been using about 20% more natural resources each year than we can regenerate – and we show no signs of stopping.

Donaldson gives a number of shocking statistics from this report which is an update of the

WWF's Living Planet Index. For example, in the last 30 years a third of all animal species have been killed off; we have lost 55% of fresh water fish species and 35% of marine species; in Africa, the elephant population has been halved in the last 20 years and the population of black rhino dropped from 65000 in 1970 to about 3000; the North Atlantic cod stocks have dwindled from 264000 tons in 1970 to less than 60000 tons in 1995.

The Global Environment Outlook on the website of the Global Resource Information Database, Geneva (<http://www.grid.unep.ch/geo>) gives the following the warning about climate change due to greenhouse gas emissions into the atmosphere:

Meeting the Kyoto targets will be just a first step in coping with the problem of climate change because it will have a marginal effect on the greenhouse gas concentration in the atmosphere. Even if, in the long term, a stabilization of atmospheric greenhouse gas concentrations is achieved, warming will continue for several decades, and sea levels will continue to rise for centuries with serious consequences for millions of people.

One has to wonder whether human rationality is such a good thing if it enables us to develop technologies, activities, and lifestyles which pose these major threats to life on Earth.

Rationality in human beings is not a sign of our superiority over other creatures; it is simply our unique feature, as other creatures have their particular unique attributes. In fact, rationality may even be looked upon as a distinct disadvantage because we may be held accountable for our actions. With rationality goes responsibility and accountability. Unlike other animals we do not act from instinct – our actions are considered. Unfortunately for the world in which we live, our considerations have most times tended to be selfish and human-centred, not taking non-human nature into consideration.

Salvation for humankind is inextricably bound up with salvation for the rest of creation. John MacQuarrie calls salvation a “making whole of human existence” (1977:335). However, human existence cannot be separated from non-human existence. We are saved *in* our world and *with* our world, not apart from it and out of it. Humankind is not made whole in a vacuum.

Humankind as a whole, and not just individual human beings, have to be reconciled to the non-

human natural world with which we constantly interact. We have not only to recognise that we are an integral part of all creation, but to recognise the reciprocity that is necessary in our relationship with non-human nature. For too long and to the detriment of our natural environment it has been mostly ‘take’ and very little ‘give’ on the part of humankind.

The message of St Paul in 2 Corinthians 5:17 is that, “God was in Christ reconciling the *world* to himself ...” All of creation, human and non-human, has to return to harmonious co-existence in order to fulfill the purposes for which it exists. This reconciliation between human and non-human nature inevitably reconciles the world to God as it brings creation into line with the intention of the Creator.

Human beings are the ones at fault in the breakdown of relationships in creation because of the self-centred abuse of their unique rationality. Therefore, in the light of the pressing need for environmental salvation and restoration on our planet, we need to urgently and seriously take to heart Paul’s statement in 2 Corinthians 5:17, “... if anyone is in Christ, he is a new creation; the old has passed away, behold, the new has come.” We need to review and revise our ideas about ourselves in the scheme of creation. It has often been said in Christian circles (rather arrogantly?), ‘We are partners with God in his creation.’ We are **not** partners with God, we are partners with the rest of ‘his’ creatures and are called to live in a symbiotic, a mutually supportive relationship with them.

6. In the Light of What Has Gone Before, which Ethical System for Christians?

6.1 Environmental Ethics , Theology and Science

Although Environmental Ethics is a relatively young discipline in the philosophical arena, a number of approaches to or systems of environmental ethics have been articulated. These range from strongly anthropocentric through a number of ecocentric approaches to radical. At the same time ecologists and environmental ‘watchdogs’ are trying to keep us abreast of current information and developments concerning the environment, and to ‘conscientise’ the public with regard to the sources and dangers of environmental degradation. Christians should not divorce their theological endeavours at coming to grips with environmental issues from the philosophical insights of environmental ethicists or from the science of ecology. Such a separation may, in the first instance lead to a ‘reinvention of the wheel’ by ignoring the insights already developed and articulated in environmental ethics. In the second instance, it will aggravate an already pronounced alienation between humankind and their natural environment by ignoring the insights of ecologists who more and more are revealing the intricate web of relationships in ecosystems of which we are part.

Jürgen Moltmann writes:

Today theology and science have entered a third stage in their relationship. Now they have become companions in tribulation, under the pressure of the ecological crisis and the search for the new direction which both must work for, if human beings and nature are to survive at all on this earth. (1985:34)

Moltmann further maintains that theologians no longer need to adhere to a former separation of theology from science because science no longer evinces its former dogmatism or, as he puts it, “faith in itself”. Scientists are also taking Christian theology more seriously as it rids itself of world views that are antiquated (Moltmann, 1985:34). What we are seeking therefore is not so much to articulate *a Christian* environmental ethics, but an environmental ethics that Christians can in all good conscience subscribe to and uphold in practice.

6.2 Some Features Necessary for an Environmental Ethic Acceptable to Christians

Before engaging with some of the ethical approaches already developed and articulated, it is necessary to list the features which would enable Christians to subscribe to an environmental ethic, and which would be compatible with what has been proposed thus far in this assignment.

- 1 There should not be a strong anthropocentrism, in other words, an attitude which is totally human-centred and sees all else in the natural world as having only instrumental value, existing solely for the benefit, pleasure and exploitation of humankind.
- 2 Consequent to 1, there should be recognition of the intrinsic value of non-human nature – it has value in itself, not just for human beings.
- 3 There should be recognition of our close relationship with our natural environment; an acceptance of the complexity of the ecosystems of which we form part and in which the activities of each component part inevitably affects the others.
- 4 A more egalitarian approach should be followed in our dealings with non-human nature, seeing ourselves not as ‘above’ or superior to, but in partnership with, in a reciprocal relationship which has elsewhere in this assignment been described as symbiotic.
- 5 Human beings’ interests and welfare should be protected, but with the recognition that this protection is the right of each species without causing unnecessary harm to others.
- 6 Reverence for life should feature strongly.
- 7 There should be an appreciation of unspoilt nature, and a desire to preserve it as far as possible, or to ‘fit in’, with the minimum of detraction from its original state.
- 8 The concept of sustainability should mean *ecologically* sustainable.

6.3. Ethical theory with relation to acceptable environmental ethics for Christians

6.3.1 The Teleological Tradition (Natural Law) This is one of the oldest ethical theories which may have relevance for environmental ethics. This theory has its origin in the philosophical system

of Aristotle and is based on the belief that every object has its particular purpose or end, identified by Aristotle as its final cause, or in the Greek, *telos* (hence ‘teleological’). An object’s *telos* is the “... natural and distinctive activity” which is characteristic of it (Des Jardins, 1993:26). In the thirteenth century Thomas Aquinas developed and interpreted this theory of Aristotle in his theology: “The characteristic activity of all natural objects resulted from God’s plan and God’s purposes.” (Des Jardins, 1993:27). Aquinas further reasoned that because of God’s perfect goodness, and because all purposes in nature were of divine origin through God’s creativity, therefore the order found in nature is also the moral order. Those who follow this line of reasoning thus appeal to Natural Law.

Natural Law as far as people of faith are concerned, ie, people of faith who believe in a Creator-God, leads almost as a matter of course to the belief that nature is sacrosanct. God has created everything good. ‘His’ laws govern nature in the wild so that all components of such ecosystems function as they should, as God intended – each fulfilling its *telos*.

Ecological problems arise when humans interfere with the natural order and treat other natural objects as having value only in so far as they serve human purposes. (Des Jardins, 1993:28)

Those who have sought to strictly adhere to this doctrine in earlier times have been against humankind harnessing nature for its benefit, for instance, in canalising or damming rivers and streams. Such modification or harnessing of nature was deemed to be destructive of the natural order of things, against Natural Law, and hence morally unacceptable, as it altered what God had created good.

Although Teleology or Natural Law has its drawbacks for humankind if interpreted and applied in a very narrow and conservative way as in the example above, it nonetheless has the advantage of raising ecological awareness in certain ways. Firstly, it draws attention to the rich diversity in non-human nature. Secondly, it draws attention to the delicate balance in nature as all components interact, and that insensitive treatment of ecosystems can have far-reaching consequences. Thirdly, although one may disagree with the idea that each component of an ecosystem has a distinctive purpose (an idea which philosophers use to discredit this theory), teleology does tend to bring human and non-human onto a more egalitarian level. Humans are seen as part of the system with their own *telos*.

One of the objections to Teleology/Natural Law has been noted in the previous paragraph, ie, the difficulty of discerning a distinctive purpose or characteristic for all things. Des Jardins, (1993: 28) puts it this way:

What is the characteristic activity of a human being?

What is the characteristic activity of a spotted owl?

Philosophers and scientists in the modern era have thought they could fully understand and explain natural objects without having to assume some natural purpose or plan.

Paul Taylor's (1995) articulation of a biocentric ethic has modified the idea of telos, which is then used to undergird his concept of the inherent worth of all living things which justifies his attitude of respect for nature. He does not view each living thing as having a fixed 'purpose' as such, perhaps a component part of a grand, overall purpose for all of nature. Taylor describes each individual organism as a "teleological center of life, pursuing its own good in its own way." (1995:131). Each living organism does its own thing, so to speak, according to its physical properties and capacities without any *ultimate* purpose: its 'purpose' or 'telos' is to be what it is and do what it does. It is simply, to borrow some words from an old popular song, "doing what comes naturally". To speak of its own good is to acknowledge that apart from any other organism, it can be harmed or benefited by environmental conditions which are either bad or good for it. (Taylor, 1995:126)

Teleological or Natural Law environmental ethics may appeal to Christians (or people of other faiths) who believe in a Creator-God who brings all things into being as part of some grand universal design. They would deny any contingency in the way things are and happen. Each individual being has its God-given telos which is part of the ultimate, universal telos/goal towards which God directs all things.

6.3.2 Utilitarianism

This ethical theory is a consequential one, judging the morality of an act on the level of 'good' or 'bad' that may result from one's actions. Jeremy Bentham (1748-1832) developed utilitarianism taking " ... psychological hedonism as the governing principle of human conduct, pain and pleasure are the 'sovereign masters' of human conduct." (Hamlyn, 1987:276) He reasoned that

all people desire happiness and therefore moral actions are those which produce maximum happiness for the greatest number of people.

Different versions of utilitarianism can ... be distinguished by how they describe the “good” ... Pleasure seems to be a plausible candidate for something that is objectively good and universally valued. This version is called *hedonistic* utilitarianism. (Des Jardins, 1993:30)

Another version of utilitarianism holds that satisfaction of desires is the “good” that produces happiness in most people. Acting in such a way that as many people as possible had as much as possible satisfied of what they desired would in this brand of utilitarianism be the correct ethical action. A slight variation of this *preference* utilitarianism is that which adds to the above that individuals should be free to choose their own desires and rank them in order of priority. Des Jardins writes that this ethical theory undergirds free market economics and thus, “ ... has significant implications for environmental policy.” (1993:30)

Probably the major argument raised against utilitarianism is the problem of quantification, of measuring and comparing, when one is dealing with abstract concepts such as happiness. When one speaks of maximising something, there must be some means of measuring so as to determine when happiness has been ‘maximised’. One way in which utilitarians attempt to overcome this drawback is to substitute something for the ‘good’ that produces happiness – something that can be measured and is related to what is deemed to be the source of happiness. Des Jardins uses the example of good health as a source of happiness for the majority of people so that in society we seek to maximise good health. How do we measure so as to ascertain that we have through our policies, maximised health in the population?

In practice, it could become very easy to substitute for health some quantifiable considerations such as life expectancy, infant mortality, injury rate, or per capita expenditures on health care ... they surely do not give us the whole story ... it becomes easy to forget the primary goal of health and simply identify these quantifiable factors as the final goal. (Des Jardins, 1993:31)

Then we have the measurement difficulty in utilitarianism of determining *all* the consequences of

an act, or the *scope* of the consequences of an act. Utilitarians are wont to only take into consideration consequences which are expected to occur in the immediate vicinity or, immediate future. This will not suffice in environmental ethics as it is clearly the case that a particular act or activity which affects the environment can have far-reaching consequences in time and space, even distant future and globally (eg. effects of radioactive contamination and deforestation).

There is in addition to the objections to utilitarianism raised above, the problem of the different ways in which happiness and pleasure are conceived by various individuals or groups, or that some people may even view happiness and pleasure as unnecessary for a good life, perhaps even ignoble. Some of this is reflected in the following points made by Adam Morton (1996: 199):

People desire addictive drugs, but addictive drugs are not desirable.

Not all ideals involving happiness are moral ideals.

Some cultures believe that suffering is noble.

It would not bode well for the environment if, for instance, most people derived pleasure from hunting animals for sport. Neither would there be any hope for the environment if human happiness generally consisted in being able to exploit Earth's resources with minimal restrictions, and environmental decisions are made according to utilitarian ethics.

It is difficult to see utilitarianism as an ethical theory that is suitable as a basis for decision-making in environmental ethics. This may be even more the case for Christians than others in making ethical decisions relating to environmental concerns. Christian conscience takes into consideration the rightness or wrongness of the act itself and not only its consequences. For instance, as Des Jardins tries to show, should a species, part of the wonderful diversity of creation, be exterminated because the industry/activity started in its natural habitat and which will cause its extermination, will provide jobs and profits (ie. utility)? We need to look at the acceptability of the act/activity itself and not just end results. What finally makes utilitarianism totally inadequate as an ethical approach suitable for environmental ethics is that its goal is to maximise happiness/good results for *humans*. The natural environment will thus always lose out when a situation arises where benefit or gain for humans is opposed to the health of the environment. In this respect, what Holmes Rolston (1994: 218) writes is worth remembering:

When we cut down a forest to gain timber and make a plowed field, the flora and fauna lose; humans gain. How much of the time

should humans win – all of the time or only part of the time? ...
There must be a net gain for humans if we are to flourish, but that tenet still allows that humans can and ought sometimes to constrain their behaviour for the good of plants and animals.

6.3.3. Deontological Ethical Theory

This ethical theory is based on duty and rights and the focus is on the rightness or wrongness of the act, rather than on what good (for humans) will result from the act as in utilitarianism. Its point of departure is that in a situation requiring ethical decision, there will be an obligation or duty to act in a certain way regardless of the outcome. The word ‘deontology’ is derived from the Greek word for duty or obligation; in fact, the root of the Greek word means literally to bind or to confine (hence we can speak of being duty-bound). Deontological ethics is often called Kantian ethics after the German philosopher Immanuel Kant, who in the eighteenth century developed this as a systematic approach, especially in his book, *Groundwork for the Metaphysics of Morals*. As DW Hamlyn writes (1987: 236), Kant’s point of departure is that:

... nothing in the world or out of it can be considered good without qualification except a *good will*. In assessing the moral worth of an action, that is the only thing that we need attend to ...
To have a good will is to act solely from duty and for the sake of duty; ...

Kant placed great emphasis on the rationality of the principles on which we act and our nature as rational beings having freedom of choice. Des Jardins, (1993:33) elaborates thus:

Assuming that we are rational beings and do not act merely as a result of instinct or conditioning, we can be held responsible because we have freely chosen to act. Thus Kant holds that we are ethical beings because we are rational beings who can freely form intentions and deliberately choose to act on them. Our standing as moral beings is derived from our nature as free and rational beings.

Kant formulated the principle of the “categorical imperative”: a moral maxim which is an unconditionally and universally acceptable rational principle on which to act – “... one should act

only on a maxim which can at the same time be willed as a universal law". (Hamlyn, 1987:237)
A corollary of Kant's categorical imperative is that all persons should never be treated only as means, but as ends.

You have the right to be treated as a free and rational being who has his or her own purposes and goals. You have the right to pursue those goals as long as you do not in turn treat others as a means to your ends ... This ethical tradition places primary value on the duty to treat other persons with respect and on the rights of equality and freedom. These basic rights and duties all follow from our nature as beings capable of free and rational actions. (Des Jardins, 1993:34)

Kant's views and ethical system have profoundly influenced western ethics and politics, discernable in democratic institutions and civil liberties. They emphasise the equal treatment of all persons which is a basic principle of justice.

How does Kantian ethics fare as a viable theory on which to base environmental ethics? First and foremost its weakness in respect of environmental ethics is that it only takes into account the rights of and duties towards *rational* beings, ie, humans. A basic principle of this theory is that *persons* as rational beings, may not be treated only as means, but as ends. This appears to leave non-human entities open to exploitation: because they are, unlike humans, non-rational (in our definition of that capacity), they may be used as means to human ends.

Another problem which critics identify is that " ... this ethical tradition offers little real basis for making normative value judgements." (Des Jardins, 1993:35) In other words, it speaks too generally and cannot give guidance, for instance, on what type of actions or behaviour would be universally acceptable under the concept of the 'categorical imperative'. An example of a 'categorical imperative' may be that one should never tell a lie. A Kantian ethicist would say that this is universalisable: no person should ever tell a lie in any circumstances. However, what if telling a lie would prevent someone from being murdered?

In environmental ethics, a Kantian may say that because of the drastic loss of species throughout

the world due to hunting, a universal ban on hunting should be imposed. The Kantian would say that this is universalisable because the depletion of species is a worldwide phenomenon, and global biodiversity is under threat – everybody under all circumstances should agree to it. But the question arises as to what happens to communities in undeveloped areas where merely surviving depends on hunting which has for generations been practised in a sustainable manner. Clearly a purely Kantian approach which would seek to make environmental decisions applicable worldwide regardless of the context would not be practicable or just.

6.3.4 Virtue Ethics

There is no intention here to delve at all deeply into this approach to ethics. It is mentioned because it may appeal to *Christians*. Alisdair MacIntyre advocated a return to virtue ethics based on the notions of the virtues in Aristotelean philosophy which were taken up into the theology of Thomas Aquinas.

MacIntyre's detailed exposition of virtue ethics and his motivation for a return to virtue ethics are contained in his book, *After Virtue* (1981, Duckworth). His point of departure is that the moral philosophies that have been used in ethical decision making – moral philosophies arising mainly out of the Enlightenment period – have led to insoluble disputes, such as the ongoing abortion debate, which has left present-day thinking on issues of morality and truth in a state of disarray. These Enlightenment moral philosophies (such as Utilitarianism and Kantianism mentioned in this assignment) all lay claim to being correct and purport to be universally applicable. Moreover, human rationality and the insights of reason are what undergirds all of these philosophies and limits them. Human rationality and the insights of reason are limiting in the Enlightenment philosophies because they rely on cold logic and empirical facts to reach a conclusion, disregarding – or unable to discern – value. Science and scientific method cannot determine value which is an important factor in the moral consideration of the environment.

Aristotle, who, mainly in his *Nicomachean Ethics*, developed the concept of virtue ethics, believed that good decision or actions come about through people who possessed good character through building up of virtues, attributes normally regarded as good, such as courage, honesty, temperance. He also encouraged working towards the *Golden Mean* (eg, too much courage is

foolishness, too little is cowardice). D.W. Hamlyn (1987: 74) writes the following with regard to these beliefs of Aristotle:

For the attainment of the good life we need the right character, something which Aristotle believes is produced by training; but we also need practical wisdom, which is generally attainable through teaching. ... he defines virtue as a mean between extremes as regards passions and actions. It is a mean which is relative, however, and is to be determined only by a man of practical wisdom.

It is noted that virtue ethics may appeal to Christians. This is because much of Christian spirituality is directed towards building 'good' character, especially determined by the example of Jesus Christ. One obvious drawback is that what may in Christianity be regarded as a virtue may not be so regarded outside of the faith. Examples of this are the qualities of humility and self-sacrifice. It may be self-evident to the Christian that these are virtues, as they are qualities which Jesus Christ possessed and which undergirded his actions. However, another school of thought outside of Christianity may propose that the qualities of humility and self-sacrifice are counterproductive to human advancement and should not be accepted as virtues. Such a school of thought may, for example, propose enlightened self-interest as a virtue which it maintains would facilitate human progress.

The virtue ethics of Aristotle emphasises the attribute of practical wisdom as noted above in the quotation from Hamlyn. Its pragmatic approach would be relevant to environmental ethics in two ways – one beneficial and the other detrimental. Beneficially, the pragmatic approach of practical wisdom would try to derive a solution to an environmental problem through consideration of the specific problem rather than by means of general theory. On the other hand, pragmatic ethics usually only approaches a problem from the point of view of its practical bearing on *human* interests and such a decidedly anthropocentric stance cannot bode well for the environment.

6.4 What Route To Take?

As has already been mentioned in 6.2, a strongly anthropocentric environmental ethic is not one that Christians or anyone who is serious about halting or preventing environmental degradation can subscribe to. Presently in South Africa, conservation seems to be the prevailing approach in

environmental concern. Conservation may sound encouragingly ‘pro-nature’, but it is in fact a strongly anthropocentric position. The natural environment or non-human nature is protected (conserved) only insofar as it benefits human beings. In South Africa conservation benefits the economy especially through tourism, and special attention is paid to the large animals for this purpose. Small species do not attract tourists attention and so are not afforded anywhere near the same attention. Rarely are whole ecosystems taken into consideration, let alone the global impact of practices that are detrimental to the environment. As far as specific ecosystems are concerned, one could probably mention wetland systems and watersheds as a rare exception, as they do appear to be receiving much attention these days. But, here again, it is probably only because scientific evidence is being advanced showing the importance of wetlands and watersheds to the environment in general. Then again the economic benefits come into play as well, as wetlands and watersheds usually support many species of birdlife particularly and this is an attraction for tourists and local visitors. In addition to the above insights about conservation, one could say that conservationists rarely, if ever, have anything to say about environmental problems emanating from or confined to urban areas, such as pollution caused by industry.

It seems therefore that we have to look beyond the conservation approach for acceptable environmental ethics. A nature-centred approach seems more suited to the features listed in 6.2 which one would want to see incorporated into environmental ethics to which we would in all good conscience feel able to subscribe. The three main positions articulated under nature-centred environmental ethics are Biocentrism, Ecocentrism and the Ecosphere position which views the whole earth as one living organism (‘Gaia’). These all feature belief in the *intrinsic value* of non-human nature, ie, nonhuman nature has value in itself apart from any value to humans.

Biocentrism is, as the name suggests, a system of environmental ethics which is life-centred: it proposes an attitude of respect for life and fosters egalitarianism amongst all living species, including human beings. Trees and plants, as living species, are included as objects of moral concern. Paul Taylor with his ethics of respect for life (closely following Albert Schweitzer) is one of the foremost exponents of biocentric ethics. The problem in Taylor’s articulation is that it confines its concern to ‘nature in the wild’ and to living species only. Campaigners for animal rights and animal liberation such as Tom Regan and Peter Singer could also be placed in the biocentric category.

Ecocentric environmental ethics has a more holistic approach and involves concern for whole ecosystems. It involves, in other words, an holistic approach, the essence of which, as Des Jardins maintains, can best be explained by the common expression, 'the whole is more than the sum of its parts' (1993:181). Des Jardins suggests that speaking of the whole being more than the sum of its parts involves what he calls *metaphysical holism* and *methodological* or *epistemological holism*.

Metaphysical holism claims that wholes are real, and perhaps more real than their constituent parts. For our purposes, this would involve the claim that ecosystems have an independent existence beyond the existence of their individual elements. (Des Jardins, 1993:181)

Methodological holism focuses ... on how best to understand or come to know various phenomena. In this view we would have an inadequate and incomplete understanding of an ecosystem even if we know everything about its constituent parts, if that is *all* we knew. (Des Jardins, 1993:182)

The last form of holism which Des Jardins mentions in this regard is *ethical* holism which gives moral consideration (in the environmental field) to whole ecosystems, just as it is recognised, "... that corporations ... have a legal standing independent of the legal standing of their individual members." (Des Jardins, 1993:182) Holmes Rolston III is an exponent of ethical holism. Another is Lawrence E. Johnson as may be deduced from his article, 'Toward the Moral Considerability of Species and Ecosystems' in Van De Veer and Pierce (Eds), 1994: *The Environmental Ethics and Policy Book*.

The position of ethical holism may be encapsulated in the saying, 'The whole is more than the sum of its parts'. Perhaps the following quotation from Holmes Rolston III (1995: 322) sheds much more light on it:

A species is what it is inseparably from the environmental niche into which it fits. ... habitats are essential to species, and an endangered species typically means an endangered habitat. ... The species ... functions in the ecosystem, and is supported

and shaped by it. ... It is not preservation of *species* that we wish but the preservation of *species in the system*.

Considering that the features listed in 6.2, by which one would judge acceptability of environmental ethics, in essence conveys the idea of an holistic approach, ecocentric environmental ethics seems to fit the picture. Outside of the more fundamentalist Christian persuasions that emphasise an individualistic concept of salvation, there is in more progressive Christian circles a promotion of community spirit. As Archbishop Desmond Tutu often used to say, "We are all saved together!" Holism in environmental ethics such as in the ecocentric model would entail a transformation of the concept of 'community' to involve not just humans but the whole ecosystem, which includes humans.

Environmental ethics for those who subscribe to the Ecosphere school of thought takes a global view as briefly mentioned above. W. Fox (1995: 177) maintains that ecosphere or Gaian ethics has its main source in the work of James Lovelock:

... ethical emphasis on the ecosphere has derived its main inspiration from the ... work of James Lovelock on the self-regulating, self-regenerating, and hence, organismic ... nature of the ecosphere considered as a whole. Lovelock refers to this ... entity ... as *Gaia*, after the Greek goddess of the earth.

This approach has as its main merit the fact that it draws attention to the global effects of some activities which may take place at a national or regional level, such as deforestation and air pollution. More and more lately are we receiving reports of the damage being done to the Earth as a whole by such practices, eg. the hole in the ozone layer, global warming, climate changes. Perhaps the main drawback of ecosphere environmental ethics is its all-embracing global focus. Although it is important to see how local activities that affect the environment contribute to the global picture, for humans to improve or change their practices to benefit the environment, ethical issues concerning the environment have to be addressed at local level. The holistic approach would be more effective if directed to the level of local ecosystems and would, in fact, in turn have global impact as more and more people come on board and take responsibility for their local 'eco-community'.

6.5 The insights of Deep Ecology as guiding light to transformation of destructive attitudes towards the environment.

It is very difficult, in fact impossible, to say with any conviction that one particular system of – or approach to – environmental ethics has all the answers, conforms to all our requirements for ethics, entailing a complete set of principles to which we can unconditionally and unequivocally subscribe. More likely, we would have to be somewhat eclectic to fulfill all our requirements. However, taking into account all that has gone before in this assignment and the list of required features in 6.2, it seems to me that the principles of the Deep Ecology platform cover most of what has been listed. Bill Devall and George Sessions (1994: 218) give the eight principles of the Deep Ecology platform which is their point of departure:

1. The well-being and flourishing of human and nonhuman life on earth have value in themselves. ... These values are independent of the usefulness of the non-human world for human purposes.
2. Richness and diversity of life forms contribute to the realisation of these values and are also values in themselves.
3. Humans have no right to reduce this richness and diversity except to satisfy *vital* needs.
4. The flourishing of human life and cultures is compatible with a substantial decrease of the human population. The flourishing of non-human life requires such a decrease.
5. Present human interference with the non-human world is excessive, and the situation is rapidly worsening.
6. Policies must therefore be changed. These policies affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present.
7. The ideological change is mainly that of appreciating *life quality* (dwelling in situations of intrinsic value) rather than adhering to an increasingly higher standard of living. There will be a profound awareness of the difference between big and great.
8. Those who subscribe to the foregoing points have an obligation directly or indirectly to try to implement the necessary changes.

Des Jardins (1993: 231) makes the point in his summary and conclusion of the section on Deep Ecology that it is not “one specific and systematic philosophy” but a mixture of “philosophical and activist approaches to ecological issues” that have in common some basic assumptions. Furthermore he writes that deep ecology, thus formulated, has very little substance because of the general, all-embracing nature of its claims (1993:231).

While one may agree with Des Jardins about the all-embracing nature of deep ecology and the difficulty that there is in using it as a system to resolve ethical dilemmas, it does nonetheless provide principles by which humans may live in harmony with the nonhuman world – an ethos rather than an ethical system. This ethos is illuminated by Arne Naess’s concept of *self-realization* which he calls “An ecological approach to being in the world”, an apt description of the spirit of deep ecology. (Naess, 1995: 192)

Self-realization, according to Naess, takes place as we identify with others, as we see ourself in others. If we are obstacles to others’ self-realization, then our own self-realization is impeded. There is thus a strong element of enlightened self-interest in the concept of self-realization. All that we can develop to become as persons, our human potential, as well as a genuine love of self, is facilitated by identification with other living species. (Naess, 1995:193) The process of identification with other species expands the ecological self as it evokes a spirit of compassion for all living beings: “... there must be identification in order for there to be compassion and among humans, solidarity.” (Naess, 1995:194) Identification with other species is therefore basic, whereby one sees oneself in the other. From that basis flows the desire not to harm or destroy, but to live in harmony with all of nature, not out of altruism but out of an enlightened self-interest within a broader concept of the self.

The attribute of self-sacrifice, which is traditionally regarded as fundamental to the Christian way of life in the call to holiness, is by implication not tenable under Naess’s concept of self-realization. This can be deduced from the following statement of his:

From the viewpoint of eco-philosophy, the point is this:

We need environmental ethics, but when people feel they unselfishly give up, even sacrifice their interest in order to show love for nature, this is probably in the long run a treacherous basis

for ecology. Through broader identification, they may come to see their own interest served by environmental protection, through genuine self-love, love of a widened and deepened self. (Naess, 1995:194)

Self-sacrifice, therefore has to acquiesce to enlightened self-interest in the context of the expanded concept of self, and the acceptance by human beings of the fundamental unity and intrinsic value of all creation. In terms of creation theology, it means that if God is accepted as the source of all life, then all creatures share a sibling-like relationship due to their filial relationship with the Creator.

It follows that it is also probably time to relinquish the theological position of humankind being created in the image of God, which is in any event human beings' purely subjective assessment of themselves (or God created, in our minds, in our image). Being bound to this anachronistic theology of the nature of humankind precludes identification with – and hence empathy with – other species. Furthermore it encourages the attitude of 'ruling over' the rest of creation in line with the ancients' concept of God as a kingly ruler. Jürgen Moltmann writes (1985: 51):

... it is important for the way the human being understands himself that he should not see himself initially as subject over against nature, and theologically as the image of God; but that he should first of all view himself as the product of nature and – theologically too – as *imago mundi*.

Which means that humankind with its habitats and modern industrial society has to be attuned to – and learn to fit itself into – nature, with as soft an ecological footprint as is possible. As noted earlier, principle 3 of the deep ecology platform states: "Humans have no right to reduce this richness and diversity [of life-forms] except to satisfy vital needs." However, it is clear that lifestyles predominating in modern industrialised societies are not concerned only with needs and the occasional treat or luxury, but are rampantly consumerist in orientation. The consequences of this are becoming rapidly ever more apparent in environmental degradation:

The soaring consumption lines that track the rise of the consumer society are ... surging indicators of environmental harm. The

consumer society's exploitation of resources threatens to exhaust, poison, or unalterably disfigure forests, soils, water and air. (Durning, 1992:23)

It is also abundantly clear that huge amounts of money are spent on technological advancements which are geared towards fulfilling consumers' demands for ever greater sophistication in non-essential gadgetry and equipment for the well-heeled. Such expenditure would be better directed towards technology which would alleviate the plight of the poor and suffering, and towards technology which would diminish the impact that humans have on the environment. This involves a radical change of mindset in which the barrier which humans have put between themselves and the rest of creation is broken down and we view ourselves as part and parcel of nature and not over and above it. ("Dust you are, to dust you will return." - Gen. 3:19b, REB)

While there are valid criticisms of the deep ecology movement, such as its idealistic, impractical nature, it must be remembered that ethics and morality, attitudes and ideals are the motivating factors behind policies and actions that bring about change. Admittedly Deep Ecology is idealistic, a fact which Albert Bergesen uses to criticise it: "... there is little in deep ecology theory other than utopian ideas of altering consciousness as a strategy for revolutionizing human/environmental relations." (1995:209) However, such idealism is a necessary step where major transformation has to take place. Revolutionary thinking usually undergirds revolutionary material and structural change. Principle no. 6 of the deep ecology platform states very clearly that it is not intended that its ideals should be the end; it promotes practical change:

Policies must therefore be changed. These policies affect basic economic, technological, and ideological structures. The resulting state of affairs will be deeply different from the present.

It is difficult to agree with Bergesen that there needs to be a shift from revolutionary consciousness to revolutionizing ecostructural relations, as he hereunder maintains:

Bio-equality, the goal of deep ecology, is correct, but the means of reaching that goal need to be shifted from revolutionizing consciousness to revolutionizing eco-structural relations. ... if human-to-nature structural relations remain unchanged, then our ecological realities will

remain unchanged. (1995:213)

Rather than speaking of a shift from revolutionizing consciousness, it should be said that obviously we cannot *remain* at the level of revolutionizing consciousness. It is the means by which we conscientise people to accept and work for radical material and structural change. It is the intellectual basis and motivation for revolution – a necessary step – without which it would be difficult for people to embrace, support and work for major transformation. That is the reason this section (6.5) is named as it is and why it has been maintained herein that deep ecology provides a particular moral ethos from which to launch practical transformation.

7. Stewardship Revisited

In *An Anglican Prayer Book 1989*, Christian Stewardship is defined as follows:

... the way in which Christians exercise their duty to administer what God has entrusted to them and to serve him gladly in his church. ... God has entrusted to human beings material possessions, time and talents and made us stewards of his creation. (1989:435)

The words translated from the Hebrew scriptures and from the Greek New Testament as ‘steward’ refer literally to one who takes care of a household. In the New Testament, it is used with regard to leaders or ministers of the church who are called to take care of the household of Christ, ie., the church, its doctrine, and sacramental life. In 1 Corinthians 4:1, reference is made to church leaders as “stewards of the mysteries of God.” The Greek word translated as ‘stewards’ is *oikonomous*, a word derived from the Greek for ‘house’, viz., *oikos*. It is from this Greek root that we derive the English words economy and ecology – economy being the way in which the ‘house’ is run and ecology the study of the ‘house’. ‘House’ is here interpreted in very broad terms, and, in the case of *ecology* refers to the Earth or global environment as the ‘house’ or field of study.

Christian stewardship therefore views the whole of creation as the household of God and human beings as the stewards God has appointed to take care of ‘his’ household. Responsible stewardship in which benevolent care for the ‘household’ is called for comes across clearly in passages such as in Luke 12:42ff where Jesus contrasts good with bad stewardship. The letter to Titus, chapter 1, verses 7-9 leaves no room for doubt as to the high standards required by God in the responsible and benevolent exercise of stewardship. This passage refers to an overseer of churches or bishop (*episkopos*) as God’s steward. It can safely be assumed that if we accept humankind’s position in God’s creation as that of steward, there is no room for the irresponsible and destructive exercise of that stewardship.

As mentioned in chapter 1 of this paper, humankind’s stewardship of the land is prefigured in the Yahwist creation story when Adam is put in the Garden of Eden to “till it and keep it” – this clause in Gen. 2:15 pointing to sustainable exploitation of the land.

Robin Attfield aptly sums up the ethic of stewardship as it is conceived of in Judaism, Christianity and Islam:

These religions have usually maintained that humanity is answerable to God, both for the use and for the care of nature, rather as the steward of an estate is answerable to its owner, or as trustees are answerable before the law for the goods which they hold on trust. They have also standardly maintained in consequence that our dealings with nature are subject to ethical constraints ... humans do not own the Earth, nor its lands nor its oceans, but hold them on a provisional basis; hence answerability. (Attfield, 1999:45)

There are objections to the stewardship model on various grounds. One such objection has been noted in the introduction to this assignment. Elizabeth Dodson Gray rejects the ethic of stewardship on the grounds of it being “steeped in hierarchy and paternalism”. (1994:27) She further maintains:

Taking care of nature from above is not the ethic we need, because we simply do not know enough to do what is promised in the phrase *taking care*. (1994:27)

John Passmore, in his book, *Man's Responsibility for Nature*, claims that stewardship is not a Christian doctrine. References to stewardship in the New Testament relate to man's stewardship of the church and not of nature. (Passmore,1980:29) According to Passmore there are more New Testament images referring to man as God's servant, rather than his appointed steward. He goes on to argue(1980:31):

If ... man is to nature as God is to man, this would suggest that nature is man's servant just as, according to the Augustinian tradition, man is God's servant, at his absolute disposal, preserved or destroyed according as God chooses, or refuses, to grant his grace.

Passmore therefore concludes that it is erroneous to regard as typically Christian the teaching that we must preserve Earth's natural beauty and fertility, in other words, act as stewards. He

furthermore claims that throughout Christian history very few prominent Christians actually espoused a doctrine of stewardship of nature.

Robin Attfield, however, comes to the opposite conclusion, tracing a strong tradition of stewardship from early Christian days to modern times. After tracing various movements and the influence and input of prominent Christians, he concludes:

Thus there has been a strong tradition in Europe and lands of European settlement, a tradition of Judaeo-Christian origins but not confined to adherents of Judaism and Christianity, of belief that people are the stewards of the earth, and responsible for its conservation, ... This tradition, far from being merely modern has been a continuous one, at any rate among Christians, from the Bible, via Basil, Chrysostom, Ambrose, Theodoret and Bernard of Clairvaux, to Calvin, Hale and Ray and to modern writers like Black and Montefiore. (Attfield, 1983:45)

Attfield believes (1983: 34) that traditional Christian stewardship is a sound enough platform from which to address environmental concerns and that it is not necessary therefore to introduce a new environmental ethic.

William Dyrness believes that a thorough reading of relevant Old Testament passages gives an organic view of humans' relationship with their environment, and, following John Macquarrie's analysis, "This organic view ... was completely displaced by the monarchical model and the nominalism of the Middle Ages, which may well have given rise to the exploitative attitude toward the earth." (Dyrness, 1987:52) However, his contention that in the P (priestly) creation account the dominion or rule of humankind over creation is one of "servanthood, as a brother or sister 'rules' over others in the family" (1987:53) does not accord with the etymological evidence or the ancient Hebrew concept of monarchical dominion.

One can concur with Dyrness that the J (Yahwist) creation story reflects a stewardship role for the man, who is told to watch over or preserve the earth, as has been pointed out earlier in this assignment. However, even with the biblical injunction that kingly rule should be righteous as indicated in the passages he quotes, such as Deuteronomy 17:14-20 and Psalm 72, there is clearly an elevated status to the office of the king who rules on behalf of God over his people. In fact, it was common for the ancient people of the east to view the king as being semi-divine. The

elevated status of human beings as rulers over the realm of nature, as opposed to Dyrness' perception of egalitarian rule, comes out clearly in Psalm 8 with its portrayal of man having been made "little less than God" and been given "dominion over the works of thy hands."

Elizabeth Dodson Gray is therefore correct in labelling the concept of stewardship hierarchical and paternalistic. The only stewardship which humans can exercise without being hierarchical and paternalistic over against nature, is stewardship over that which is uniquely human. Material possessions, time and talents have been mentioned at the beginning of this chapter in the excerpt from the Anglican Prayer Book. One needs to add to that science, technology and human intellect which, of course, are linked. As we exercise good stewardship over distinctly human endeavours and resources, what should inform that stewardship as well as limit and direct our activities is the impact we are having on the rest of nature (accepting ourselves of course, as part of nature). In the Declaration Towards a Global Ethic drawn up and signed by the vast majority of delegates to the 1993 Parliament of the World's Religions, it is stated in the Principles of a Global Ethic:

We are intertwined together in this cosmos and we are all dependent on each other. Each one of us depends on the welfare of all. Therefore the dominance of humanity over nature and the cosmos must not be encouraged. Instead we must cultivate living in harmony with nature and the cosmos. (Küng and Kuschel, 1993:26)

One could search the scriptures and the Christian historical record as Passmore and Attfield have done and find justification for both of their positions, or for that of Dyrness or anyone else who has adopted a position with regard to stewardship as a Christian environmental ethic. It is good that the scriptural and historical evidence has been aired and compared in this fashion to enable people to make an informed decision as to whether stewardship is the biblically justified position, and whether it has been pursued through Christian history. However, it is necessary to ask whether the ethic of stewardship should be embraced and followed by Christians in this day and age, even if the scriptural and historical evidence confirms its biblical origin and transmission through the ages. Is Robin Attfield justified in maintaining that we do not need a new environmental ethic?

I would say that the ethic of stewardship runs contrary to the ethos of democracy and egalitarianism that is dominant in the developed world today. Even if we accept that it is intended to be benevolent, as the scriptural evidence suggests, the image of the steward is not one with which people today would readily identify. Added to that is the fact that the predominantly Christian industrialised nations of the west are largely responsible for the global environmental crisis we find ourselves in. We may deduce from this that the decline of Christianity in the last three or four decades in the western industrialised nations – or nominal Christianity in the same – has led to Christian ethics being ignored. Or we may deduce that the rapid rise of science and technology of late, and the contribution that this factor has made to higher standards of living in the largely Christian west, has blinded humankind to the destructive consequences with regard to the environment. Alternatively, we may lay the blame firmly at the door of human avarice which has an endless capacity for gratification, regardless of the destructive effects on the natural environment now, and the consequential inability of the Earth to meet the needs of future generations. Of course, we may agree that it is a combination of all three.

Whichever option we take, it has to be recognised that the ethic of stewardship, if it *has* been featured in the Christian approach to the environment, as such as Attfield maintain, has failed to prevent environmental degradation and destruction in largely Christian countries, or has simply been discarded of late. It therefore means, contrary to what Attfield feels, that we *do* need a new environmental ethic that people today, Christian or not, can identify with and promote as an effective way to address and arrest environmental degradation and destruction. The global extent of the ecological crisis we face requires an environmental ethic that cuts across the confines of religion, nationality and culture.

Such an ethic would thus be decidedly deontological in nature but extended beyond the human realm, featuring universality and a sense of obligation and duty, not only to the human species, but to our nonhuman co-inhabitants of planet Earth. The spirit of egalitarianism featured in Kantian deontology would also extend beyond the human sphere. However, it would not be so much a matter of seeking or promoting the *equality* of all living things – after all, what features, aspects, qualities could we compare in vastly differing creatures so as to speak of equality? Rather we would speak of the intrinsic value of all that is in nature, as opposed to non-humans only having instrumental value for human beings.

8. Becoming Attuned

I wish to propose that Elizabeth Dodson Gray's Ethic of Attunement most adequately meets the criteria enunciated in this assignment for an acceptable environmental ethic. As has already been indicated she discards the ethic of stewardship because it leaves the " ... illusions of hierarchy, ownership, and dominion safe in our hands and hearts." (Gray, 1994:27)

In Gray's ethic of attunement it is accepted that we are part and parcel of nature and that we have to view ourselves as such and not as overlords. Once we have adopted that world view we would be motivated to become attuned to our ecosystems and the life-support systems in the Earth's biosphere.

... we are to open ourselves, we are to listen and look, we are to pay attention.

Why? Because we are *within* life, not above it, and we see life incompletely and often dimly, and we cannot afford *not* to attune ourselves (Gray, 1994:27)

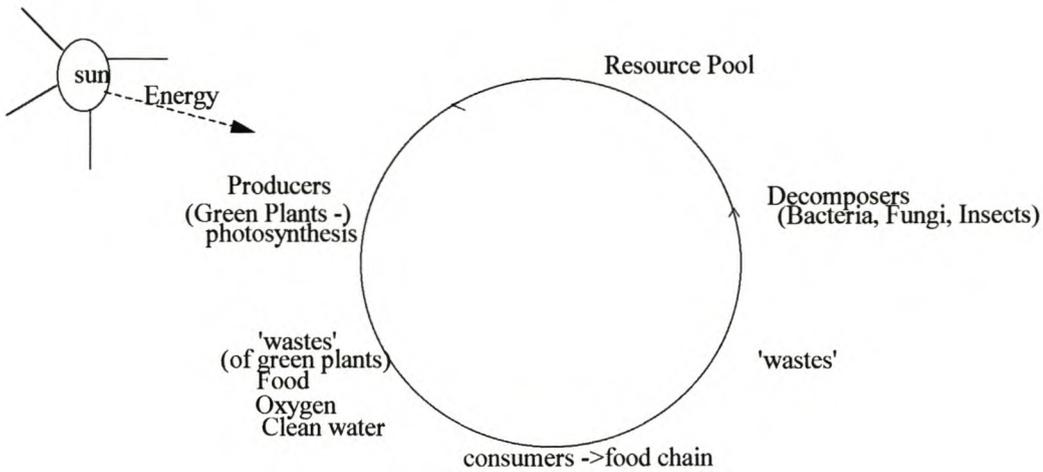
It is a matter of training ourselves, conditioning ourselves to become aware of the natural world of which we are part and of the effect we humans have on it through our activities and lifestyles. Gray quotes the poet Thich Nhat Hanh in this regard: "What we most need to do is to hear within ourselves the sounds of the earth crying." (1994:28)

Gray's ethic of attunement is a transformative ethic which features a practical component in that its application is discussed. Becoming attuned to their environment would motivate human beings to discern how best to apply technology, and to design and plan industrial activity so as to 'fit in' with their environment.

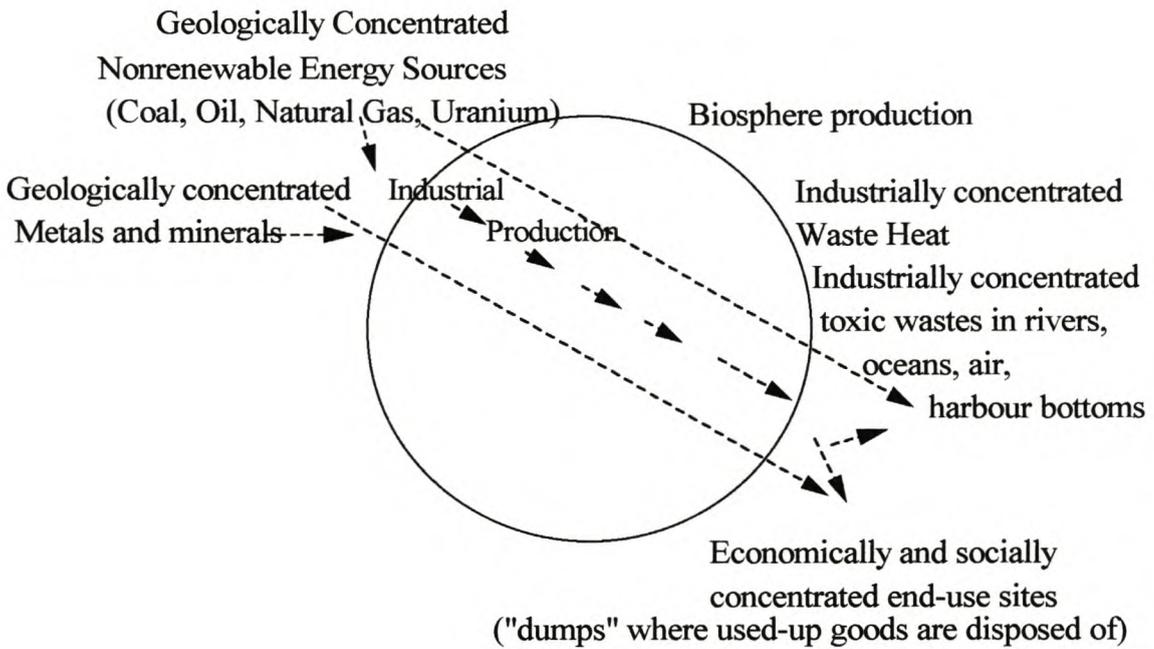
The major problem which Gray identifies in our present mode of industrial production is that the process is linear, as opposed to the cyclical mode of natural processes which is highly efficient and sustainable. She describes the biosphere's mode of production in the following way:

It is a cycle that repeats itself, mostly without human intervention or management and certainly without any reliance on government subsidies. From the perspective of the industrialised economies this is truly an under-appreciated miracle. (Gray, 1994:29)

This she shows in diagrammatic form more or less as follows:



Compare the Industrial Model of Production hereunder:



Gray's Industrial Model of Production (1994:31)

The challenge that is posed by this ethic of attunement is the redesigning of the current unsustainable linear method of industrial production to one that "... cycles and recycles, mimicking the cyclical process of the biosphere." (Gray, 1994:30) Accepting that we belong within nature

motivates the desire to become attuned to our natural environment and then to fit our human activities within the natural systems so that they operate in a way that is not ecologically destructive.

A very important plus factor in Gray's ethic of attunement is that it goes beyond environmental concern and ethical theory to the practicalities of application. It embraces, if not directly then by implication, virtually all of the principles of the deep ecology platform which has earlier in this paper been proposed as providing a worthy ethos of ecological concern within which to operate. However, 'attunement' moves beyond ethos and theory to the provision of ways in which its insights may be applied. It is down to earth.

The point is clearly made that the ethic of attunement is not against technology; but the technology we use must fit " ... within the biospherical systems just as a hand fits into a glove without destroying that glove." (Gray, 1994:30) Indeed we would not be able to redesign our industrial systems of production to 'fit in', to be cyclical and sustainable, without technology.

... it must be technology used with sensitivity, technology that is carefully and consistently monitored to track its impacts on air and water and natural systems and habitats. What is needed is technology motivated not only by profit but by a profound appreciation of our true place within the living earth system and marked by a commitment to stop using any technology if it proves harmful. (Gray, 1994:31)

Gray makes use of Bettie Willard's concept of "ecological reconnaissance" whereby the ecological 'terrain' is 'scouted' and assessed by trained ecologists *before* any project gets to the designing stage. The usual process of getting people who are mostly untrained in ecology, such as engineers, architects, economists, etc, to design a project and then submit it for an environmental impact assessment, leads to projects being incompatible with the ecosystem/s involved and therefore ridiculous choices having to be made (Gray, 1994:31-32). Ecological reconnaissance would eliminate this problem because ecologists attune themselves to the terrain and determine firstly whether the envisaged project is feasible on that terrain, and, if so, how it should be designed so as to 'fit in'. Only then would the project go to the drawing boards.

There are a few examples given in Gray's article of actual projects and how ecological reconnaissance and then designing projects accordingly enabled them to fit in with the minimum impact on the environment. At the same time the projects could function effectively. These particular projects were an Alaskan oil pipeline, a molybdenum mine in the Colorado Rocky Mountains and the expansion of the Port of Miami with the associated dredging of the Biscayne Bay. In the latter project, after ecological reconnaissance was done by an expert in subtropical marine ecosystems and the plans for dredging were negotiated and renegotiated, a win-win situation was achieved. As Gray states (1994: 34):

... the expansion needs of the port and the survival needs of marine life and ecosystems in Biscayne Bay had been brought into an acceptable economic and ecological balance.

This ethic of attunement is practical and also takes into account the needs of human beings as part of nature. It features the enlightened self-interest that has been mooted earlier in this assignment as the necessary alternative to self-sacrifice. Commenting on the win-win solutions achieved in the case studies she presented, Gray concludes (1994: 37):

... these case studies each illustrate that attunement carries with it a radically new view of self-interest. If life really is an interconnected system – if we really live on a finite and intricately inter-related planet – then the only ethic that works is a whole-system or all-win ethic. Every decision we make, to be a good decision, must be good for the whole system.

What is also encouraging and endearing about Gray's ethic of attunement is that it features universality and the equal treatment of all human beings in environmental decision-making, in other words, environmental justice.

If a decision is good for men but not for women, then it is a bad decision and we will regret it ... if a decision is good for adults but not for children – good for whites but not for people of color; good for rich but not for poor; good for the First World but not the Third World; good for humans but not good for plants, animals, the ozone layer, and air and water; good for the present

but not the future – it is a BAD decision and we will come to regret it. (Gray, 1994:37-38)

Christians may lament that there is no mention of God or Jesus Christ or faith in all of this. But it has been indicated earlier in this assignment that its purpose is to determine which environmental ethic best conforms to the criteria enumerated herein and cuts across barriers of nationality, race, colour or religion. What may not appeal to many members of the three major monotheistic world religions, Christianity, Islam and Judaism, is the discarding of a hierarchical view of the relationship between humankind and nonhuman nature, especially the renunciation of the concept of stewardship. However, the need for this has already been motivated in this paper. One can only become adequately attuned to a situation, any situation, from within it and not from above it. Moreover, it is a simple step for Christians – or those of other faiths who subscribe to creation theology – to substitute ‘God’s creation’ for talk of ‘nature’ (including humankind). It may also help to remember that Gray is (or was at the time of writing her article on the ethic of attunement) co-director of the Boston Institute for a Sustainable Future and co-ordinator for the Theological Opportunities Program at the Harvard Divinity School. She is a feminist theologian and her ethic of attunement was surely the result of theological reflection.

In her ethic of attunement Gray is not averse to humankind benefiting from nonhuman nature, especially in the field of health and medicine. Some environmental ethicists would want to classify this as an anthropocentric view, seeing in it an approach whereby nonhuman nature has instrumental value for humans. For Gray, however, it is a logical development of becoming attuned to nature. She writes of the discovery by Wrangham, an anthropologist and specialist in primate behaviour, that chimpanzees doctor themselves by chewing *Aspilia* leaves, which were subsequently analysed and found to contain an oil that kills bacteria, fungi and parasitic worms. What is more, it was also discovered that the same substance kills cancer cells that are resistant to drugs. (Gray, 1994:39)

Researchers have also found numerous other instances of animals doctoring themselves and there is the anticipation that a number of natural medicines that would benefit human health could be discovered in this way. Gray poses the question (1994:40):

Were we ignorant because we never bothered to look? Did we fail

to pay attention because we did not think animals could teach us something we didn't know? Such looking would be an outgrowth of attuning ourselves, an outgrowth of knowing ourselves to be within and therefore in need of paying attention, learning.

This in essence conforms to the type of relationship that has been described and promoted in this assignment – a symbiotic relationship between humans and nonhuman nature. As we attune ourselves to our natural environment and strive for its protection, it can in turn 'care' for us and provide for our needs in many ways, including the abovementioned medicinal functions – mutual care rather than anthropocentrism.

The ethic of attunement should appeal to Christians on the grounds that it builds virtuous character. It stands against destructive attitudes towards God's creation, which as Genesis 1 reminds us, is created good. If, as seems to be the case, the strong trend in the industrialised world today is domination and greedy and/or unthinking exploitation of nonhuman nature, then the ethic of attunement calls us, in the words of St Paul, not to be "... conformed to this world but be transformed by the renewal of your mind, that you may prove what is the will of God, what is good and acceptable and perfect." (Romans 12:2, RSV) It also calls for environmental justice, as has been indicated, in that environmental decisions should not favour some people or groups above others. There is implied in this ethic a call to holy living and the fostering of abundant life, living so that others may live – others in this context not only applicable to humans but non-humans as well.

The last word on the ethic of attunement comes from Gray herself (1994: 40):

Where you stand, physically and mentally, affects what you see and where you look. The ethic of attunement calls us to come inside the circle of creation and find our unique place, but we must give up our arrogance. Having eyes do we not see? Having ears do we not hear? Can we attune ourselves to life before it is too late? Only time will tell.

9. Practical Implications and Applications of an Ethic of Attunement

In this section, only a few areas are touched on so as to give some indication of how an ethic of attunement would affect human society's activities. It is by no means exhaustive but should give some idea of the general direction that needs to be followed under this ethic.

9.1. Education

Developing an ethic of attunement in a human population requires firstly that a mindset and attitude which is favourable towards the natural environment be fostered and encouraged through education about, and exposure to, nature. In the media the number of nature programmes and features on environmental education generally, has to greatly increase with a good percentage of such features directed towards showing the effects of activities that are destructive as far as the environment is concerned. Affordable guided eco-tours (affordable for South Africans that is!) should be freely available to the population so as to promote a 'feel' for nature.

Certainly as we raise the decision-makers of the future, environmental education should be compulsory in all grades at school and should even be a part of pre-school education. Christian churches could help in this regard by featuring environmental education in their Christian education programmes such as in Sunday School and confirmation classes. These programmes at school and church should also involve first-hand exposure to nature through environmental walks and camps. It is, after all, giving practical expression to creation theology.

Another way in which Christian churches (in fact, all faith communities) may help is in the promotion of lifestyles that are environmentally friendly. In South Africa we are clearly being rapidly caught up in the culture of the consumer society: it seems that globalization means being colonised by the consumerist culture of the highly industrialised nations of east and especially west, notably America. The consumer culture militates against attunement because it encourages the unsustainable use of the earth's resources as well as generating huge amounts of non-biodegradable waste which the earth is fast running out of the capacity to 'dispose' of. We are all consumers to a greater or lesser extent; but it is the rampant, 'no-holds-barred' type of consumerism, and inordinately high standards of living indulged in and aspired to in highly

industrialised and commercialised society that is a major cause of environmental destruction and degradation. Teaching against this culture and lifestyle, which is both superficial and destructive, is consistent with the tenets of most world religions which encourage depth of living ('spirituality') and the protection of that which is accepted as the goodness of God's creation.

9.2. Industry, Consumers and 'Waste'

Elizabeth Dodson Gray has demonstrated how wasteful and inefficient our industrial processes are in her comparison between the bio-sphere's mode of production and that of modern industry. Industry has also to be attuned to nature's cyclical mode of production and transform its process from linear mode to cyclical. Recycling has to take place on a far greater scale and over a much larger range of products. Not enough research is being done to enable industry and its products to become more environmentally friendly. When technological advances in products are declared and these products then advertised as the 'new, improved' product, it rarely (if ever) has anything to do with the product being more environmentally friendly.

Consumers also have to become more environmentally conscious and, by making choices and lobbying for more environmentally friendly products, force the captains of industry to rethink their approach to technological advancement. In the home as well, we have to become more aware of how our activities, use of manufactured products as well as natural resources such as water, affect our environment. We have to thus at domestic level also lessen the weight of our environmental footprint. Recycling at domestic level should not only be encouraged, but be legislated for. For instance, it should be decreed that household refuse has to be separated into its components such as paper, tin, glass and vegetable matter before it would be collected.

Not enough research is going into the development of biodegradable plastics which may be used by industry in the manufacture of products which presently are difficult to dispose of. In actual fact, these products are not really 'disposed of' but moved from one place to another. With the unrelenting march of technology, every year thousands of items, especially electronic equipment, become obsolete. Presently place has to be found to 'dispose of' these outdated and obsolete items of electronic equipment, such as computers. Just recently it was reported that the growing mountain of 'obsolete' cell phones in the United Kingdom is causing grave concern for the environment as millions (30,000 tons) are discarded annually in favour of technologically more

advanced models. On a worldwide scale, the figure must be staggering! We use 'disposable' razors which are mainly plastic and a host of other so-called disposable items which are non-biodegradable, such as non-returnable plastic bottles and jars. Throughout the world in modern industrialised societies there must be millions of 'disposable' babies' nappies used daily. It is said that these take a few hundred years to totally disintegrate. "There is no *away* to throw things to. Even garbage ends up somewhere." (Gray, 1994:26)

By creating these enormous quantities of non-biodegradable products which end up as waste which is not recycled, we continually have to find new dumping grounds until we eventually run out of them. What then: rocket-propelled garbage-carriers to dump on the moon? Paul H. Connett (1994: 570) writes from his context in the USA:

Not only do we overconsume, but we also compound the crime by throwing much away. In America, each year we throw away 1.6 billion pens, 2 billion disposable razors, 16 billion diapers, 22 billion plastic grocery bags, and enough office paper to build a twelve-foot-high wall from New York City to Los Angeles. ... We are running out of places to dispose of the disposables of our disposable society. ... We can't run a throwaway society on a finite planet. ... The ethical imperative is clear. We have to stop living as if future generations had another planet to go to.

9.3. Crop Farming

The only way for crop farming to operate within the cyclical mode of nature is for it to become organic. If, as has been suggested above, all household vegetable matter is collected for recycling as well as grass cuttings, leaves and manure – even excess kelp washed up on beaches – then enough compost should be generated to make the use of artificial fertilizers unnecessary. Groundwater and rivers would be spared the contamination from chemicals running off from excess artificial fertilizers and the consequent poisoning of the eco-systems in rivers and estuaries. Viable alternative methods of pest and plant disease control need to be found because of the continuing contamination of air, soil and water by spraying with poisonous chemicals.

9.4. Energy for Electricity Generation

Nuclear energy has been – and continues to be – promoted by its protagonists as a 'clean' source of electricity. However, because it produces a non-recyclable end-product which is extremely

harmful to almost all life-forms, there is no way that its use can be justified under the ethic of attunement. 'Disposing' of the nuclear waste which takes thousands of years for its radioactivity to dissipate cannot be guaranteed safe. Sealing it in concrete containers which are then buried deep underground in some remote area may appear to some to be the solution to the 'disposal' problem, but it only takes an earthquake to shatter that illusion, not to mention the damage that can be done to nuclear power stations themselves and the consequences thereof.

Nuclear power protagonists may argue that the chances of this happening are extremely low, noting that such power stations and nuclear waste disposal sites are deliberately situated in areas not known for seismic activity. The point is that nuclear power generation does not fit into the bio-sphere's cyclical processes. It is a linear process producing waste that cannot be recycled and which, in the event of a major accident, act of war, or natural disaster can cause untold, long-term damage to nature, both human and nonhuman. Not enough has been done to research, promote, develop and implement truly 'clean' sources of energy for electricity generation such as wind, solar and wave energy. In the meantime, the billions already spent to research, develop and build nuclear power facilities could have been used to develop filters to curtail harmful emissions from our coal-fueled power stations.

9.5. Nature Conservation, Wildlife Areas and Tourism

Nature conservation as it is practised in this country does not conform to the ethic of attunement. There is the inclination to develop nature areas, the idea being to make them more attractive for tourists who are a major source of revenue. In many nature reserves – national, provincial or privately owned – luxurious accommodation is provided for the well-heeled. These are quite incongruous in the wilds, designed and equipped in such a way as to make 'fitting in' and attunement to surrounding nature almost impossible. Luxury accommodation should be meant for the human habitat in urban areas. The bigger and more luxurious these developments are, the heavier the ecological footprint in nature areas. Accommodation (or any development) in such areas should blend in aesthetically with the surroundings and be reasonably comfortable rather than luxurious. Tourists can always experience luxury accommodation in our cities or in their own home town/cities; but providing a more authentic wilderness experience with opportunities for becoming attuned to nature will promote respect for it and acknowledgement of its intrinsic value.

Conservation, which is really the enslavement of nonhuman nature for human ends, should give way to a system of letting nonhuman nature be, that is, nonhuman nature in the wild. Tourism and sightseeing, and any facilities necessary for this to take place, should therefore be as unobtrusive as possible.

9.6. Clashes Between Humans and Wild Nonhuman Nature **– A Particular Example**

On two consecutive days in the Cape Argus, 24 July 2002 and 25 July 2002, there were reports about clashes between baboons and humans (with their dogs) in the Cape Peninsula area. The report on 24 July was headlined, “Baboon intruders killed by pet dogs” and dealt with incidents in the Tokai area. On 25 July the article was headed:

Residential areas on the Peninsula are encroaching on the baboons’ natural habitat. As man and wild animal are forced to interact more regularly, problems are bound to arise – in spite of the efforts of understaffed, overworked monitors.

This latter article dealt with the problem in the general area of Kommetjie.

The headline of the first article refers to the baboons as ‘intruders’. Is this not a distortion of reality? The Chacma baboons in question normally come down from the mountains and hills in winter to forage for food in the low-lying areas, even on the seashore in the intertidal zone. The fact of the matter is that humans have built homes in areas where baboons once roamed freely in search of food. Who then is the intruder? In the second article, Jenny Trethowan of Baboon Matters is recorded as having said; “There’s rapid encroachment on the baboons’ territory all round. Baboons and people are being pushed together.”

On the one hand, therefore, you have residents in these areas who feel that baboons are a threat to their peace, safety and well being, who feel under siege, who feel that *they* are the victims. Some of them want the baboons killed and a number of baboons have already been killed by shooting or by residents’ dogs. Environmentalists, such as the people of Baboon Matters and officers of Cape Nature Conservation, do not see this as an option and believe the baboons are

getting a raw deal. How would the insights of the ethics of attunement shed light on this dilemma?

To begin with, had the ethic of attunement been in place in town planning years ago, many of the residential and industrial developments that are situated in or near ecologically sensitive areas would never have been allowed. Many of the natural habitats of fauna and flora have been destroyed, have disappeared completely, and others have been encroached upon and so altered that these areas have lost most of their bio-diversity. In the second of the newspaper articles mentioned above, Trethowan of Baboon Matters laments:

This is a flagship species. Baboons represent other environmental issues; they're visible and people can relate to them. There is so little wildlife left in the Western Cape. We are lucky to have primates in our midst. Everything is connected – take out one species and you don't know how it will affect everything else. There's a continuous attrition of the natural environment. It concerns me, and if we don't take a stand now, there won't be anything left. The baboons have nowhere to go.

To try and remedy the prevailing situation in the affected areas is no easy task and it is not within the ambit of this assignment to provide detailed solutions. We may examine the situations from the vantage point of an ethic of attunement and indicate in which general direction a solution may lie.

From the outset we may say that, in the eyes of most environmentally concerned people, the killing of this native species in its natural habitat to allay the fears of the actual intruder cannot be justified. Keeping of large and vicious dogs should be prohibited in these areas and shooting of baboons should be punishable with stiff sentences. Having chosen to live there, to intrude on the baboons' habitat, people must become attuned to that ecosystem and learn how to fit in. It means that those people have a responsibility to educate themselves about the baboons, their feeding habits and whole pattern of living. Then cognisance must be taken of the ways in which human intrusion has disrupted the baboons' natural mode of life, especially their need and ability to find food, which is the main cause of human/baboon conflict.

Only when humans acquaint themselves with, and attune themselves to, the natural systems in which they have chosen to reside, will it be possible to find ethically acceptable solutions to the disruption they have caused. In the human vs baboon fiasco, it may be necessary to discard the present accepted methods of dealing with the problem, such as baboon monitoring, whereby baboon troops are followed and chased away from residential areas. An option could be to provide areas – vacant land – where ‘baboon food’ is provided during the winter months especially, when the baboons come down to forage. If houses and refuse bins are made ‘baboon proof’ and no vegetables and fruit are grown in gardens, the baboons would probably develop a pattern of foraging on the artificially created feeding areas.

It would be well-nigh impossible in this case to undo the harm done to the natural scheme of things in the wild, but by attunement we may be able to offer some sort of restitutive solution.

Restitution, it must be stressed, does not somehow render what was done retrospectively permissible or in any way morally redeemed. The past action was, and remains, impermissible and that fact, moreover, generates present and continuing obligations to restore degraded nature. (Elliot, 1997:113)

It is hoped that these few instances adequately illustrate some of the practical implications and applications of the ethic of attunement and show that it is not only viable but necessary to implement. Of course, in promoting its implementation, the most difficult part would be changing the mindsets and attitudes of people away from that of being above nonhuman nature to being – in Elizabeth Dodson Gray’s words – within the circle of creation.

10. CONCLUSION

Absolute Nature lives not in our life, nor yet is it lifeless, but lives in the life of God; and in so far, and so far merely, as man himself lives in that life, does he come into sympathy with Nature, and Nature with him. She is God's daughter, who stretches her hand only to her Father's friends. Not Shelley, not Wordsworth himself, ever drew so close to the heart of Nature as did the Seraph of Assisi who was close to the heart of God.

Francis Thompson (1859 - 1907): 'Works', vol III.

Overlooking the patriarchal and gender-insensitive tones of the above passage from a bygone age, one yet distinguishes a standard Christian teaching. That teaching is that love of God the Creator is the basis of, motivation for, and means by which we come into a right relationship with all of creation, human and nonhuman. Although it is not strictly speaking attunement, Thompson does in this passage speak of sensitivity to nature (nonhuman in this instance) which he describes as "[coming] into sympathy with Nature." How else to develop sensitivity towards or sympathy with nature than by making the effort to become attuned?

It would probably take a leap of faith for many Christians to abandon the doctrine of stewardship over nonhuman nature which many believe to be adequate for the purposes of preservation of nature as well as biblically justified. Stewardship, however, retains the sense of domination and superiority, albeit meant to be benevolent, and moreover creates the impression that God is akin to an absentee landlord. The ethic of attunement allows the Creator to care for 'his' own creation through humans becoming aware of and attuned to the natural cycles and processes and learning to live, work and play within them. Attunement also embraces the ethos of the deep ecological movement whose foundation principles have been used to guide us towards an environmental ethic which unequivocally places humankind within creation. Deep ecology speaks of humankind treading lightly upon Earth, of an extended view of self-realisation (as per Arne Naess) in which we identify with other life-forms. These guiding principles can be realised under the ethic of attunement as we acknowledge our creatureliness alongside other creatures and within the circle of creation.

It needs to be reiterated that the concept of Christian stewardship is not being rejected in its entirety, but only as it applies to exercising stewardship over the natural environment. In fact, the ethic of attunement by implication calls us to exercise good stewardship over our own particularly human resources and technology. Good stewardship would be using our resources and technology and directing our developments towards fitting within the natural processes of the biosphere.

Furthermore, as we acknowledge that we as humans are part of creation, part of nature, then if we claim protection under the law, it makes sense to extend that protection to nonhuman nature. Christopher Stone makes this point in his article 'Should Trees Have Standing?' Nonhuman nature should have access to courts of law for protection in their own right, and not only, as things presently stand, through the rights of human beings being violated. For instance under the present status quo humans may prevent a forest being cut down or a stream being polluted on the grounds that their (human) rights are being violated, for argument's sake, the loss of a recreational area or clean drinking water. But it is not yet possible for the forest or stream to take legal action for its protection in its own right. Stone writes (1995: 117):

It is not inevitable, nor is it wise, that natural objects should have no rights to seek redress in their own behalf. It is no answer to say that streams and forests cannot speak. Corporations cannot speak either; nor can states, estates, infants, incompetents, municipalities or universities. Lawyers speak for them ...

Stone goes on to argue that lawyers may be designated to speak on behalf of nonhuman nature just as they are when human beings need legal representation and are incompetent to speak on their own behalf. He goes into much greater detail about how this may be made to work within the legal system of his own country, the United States of America. Suffice it to say here that if we accept that all of nature has intrinsic value and that, as the ethic of attunement maintains, humans cannot on any grounds claim superiority over nonhuman nature, then, logically, the latter should have the same right of legal protection for its own sake.

As Christians on their spiritual journey continue to reflect upon the nature of the world and the universe and upon the place of humankind within the scheme of all creation, we become more aware of the complexity of that scheme. We cannot afford to take a reductionist approach

anymore – the whole is more than the sum of its constituent parts. Science, especially the science of ecology, is showing us more and more how interrelated all things are in our world, and how human disregard for this fact is taking the world rapidly towards environmental collapse. This assignment has already mentioned the Sunday Times article of 14 July 2002 highlighting the findings of the World Wildlife Fund in its report on the ecological state of the world issued just prior to the recent World Summit on Sustainable Development. (“Time Running Out for Earth”.) There are statistics contained in that report which should make *all* people, of faith or none, sit bolt upright and review our human approach to the environment.

In line with that wake-up call, I wish to conclude with a quotation from *God the Economist* by M. Douglas Meeks. Although Meeks takes a largely stewardship approach to the preservation of the environment, this statement of his conforms to sentiments expressed in this assignment about how we ought to approach nature and our place therein.

The human being is first of all a creature. That is, the human being stands in solidarity with everything else that has been called into being by God’s word of righteousness. The ideology of growth through technical mastery of nature has forgotten this primal reality of the human being ... An economic system that does not recognise that the human being is part of nature and that if nature dies the human being will too, is not worth supporting, for it will give no hope for the coming generations, much less the long-range future of human beings and nature. (Meeks, 1989:89-90)

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