

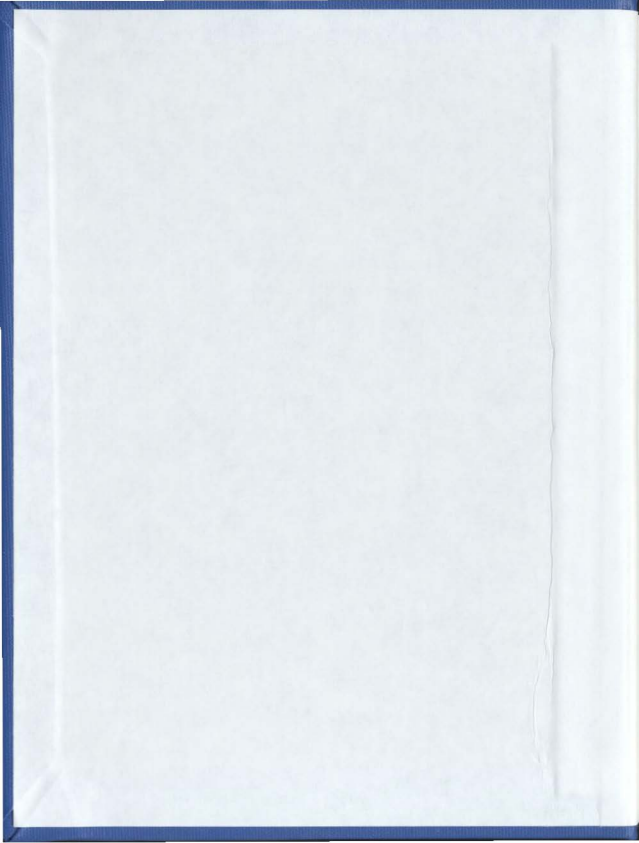
CHRISTIANITY'S BURDEN OF GUILT:
AN EXAMINATION OF LYNN WHITE'S THESIS
ON THE ECOLOGICAL CRISIS IN THE LIGHT
OF THE BIBLICAL DATA

CENTRE FOR NEWFOUNDLAND STUDIES

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BRYCE S. HODDER



Christianity's Burden of Guilt: An Examination of Lynn
White's Thesis on the Ecological Crisis in the Light of the
Biblical Data

by

Bryce S. Hodder

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ABSTRACT

The second half of the twentieth century has seen increased interest in ecology, in particular, in showing a more caring attitude towards creation. Much of this interest is the result of the survival instinct and the awareness of the interdependency of all forms of life on this planet. There has, however, been an awakening regarding the intrinsic worth of all of creation. Humanity is finally coming to the conclusion that the inherent value and right to protection for all living things is vital for the survival of each species of life (plant, animal and human).

There have been those, Lynn White in particular, who have argued that our ecological problems result from Judeo-Christian teachings and the root of the problem can be traced to the Genesis creation stories; this argument makes the point that Judaism and Christianity are the most anthropocentric of all of the world's religions. The present thesis seeks to examine this accusation and through a study of various scriptural passages and Judeo-Christian teachings through the ages show that White and others who share the same opinion have reached invalid conclusions. It will be shown that the burden of guilt for the ecological crisis cannot be placed solely on the shoulders of Judaism or Christianity.

In this examination the interpretation of the Genesis creation stories through the ages and their connection to the

current ecological crisis will be of significant interest. Various other Scripture passages, which have been used to support what Cameron Wybrow refers to as the "mastery hypothesis," will also be examined. As well, I will examine the importance of Judeo-Christian teachings during various historical periods.

An examination of Biblical interpretations and various teachings or philosophies on humanity's place in the created order will refute the arguments of Lynn White and others. It will also determine that Judeo-Christian teachings, properly interpreted and followed, portray a creation made up of many components, each with intrinsic worth.

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INTRODUCTION

As the ecological crisis worsens, the debate surrounding the original causes continues. Placing blame may not be a part of the solution, but tracing the historical roots of the problem is of significance. While there is a lack of agreement among scholars as to the root cause of the ecological crisis, the Western world and Judeo-Christian teachings have received much of the blame. Lynn White is among the most prominent of those scholars who put blame for the ecological crisis on the Judeo-Christian tradition. At a meeting of the American Association for the Advancement of Science in 1966 Lynn White delivered an address entitled, "The Historical Roots of Our Ecologic Crisis." In this address he attempted to show a direct correlation between the ecological crisis and Judeo-Christian teaching. He placed much blame in particular on the interpretation of Genesis 1:28. One of the most controversial statements coming out of that address was, "especially in its Western form, Christianity is the most anthropocentric religion the world has seen."¹ Recognizing that all forms of life modify their habitat, White argues that

¹Lynn White Jr., "The Historical Roots of Our Ecologic Crisis", Science 155 (March 10, 1967), p.1206. See also: Lynn White Jr., Machina Ex Deo: Essays in the Dynamism of Western Culture (Cambridge: The MIT Press, 1968); Lynn White Jr., Medieval Religion and Technology (Los Angeles: University of California Press, 1978); Lynn White Jr., Medieval Technology And Social Change (Oxford: The Clarendon Press, 1962).

none do so to the extent of human beings, especially Western human beings. It is his contention that the Judeo-Christian interpretation of Genesis 1:28 has given science and technology licence to advance at an unprecedented rate. Rather than impeding the growth of science and technology, an argument put forth by many persons, White sees the Judeo-Christian tradition as encouraging the advancement of science and technology to the detriment of creation. It is this tradition, he asserts, which removed all traces of the sacred in nature in its attempt to vanquish paganism. According to White, followers of this tradition see it as the will of God to dominate and use nature for their own desires or needs. While this may not have been an ethical attitude it did not pose a major threat to creation until the nineteenth century.

It was in the nineteenth century that science and technology combined in the Western world. White maintains that although modern science and modern technology have inherited much from various cultures, today's science and technology are "distinctively Occidental."² He also believes that Western leadership in both areas pre-dates the Scientific Revolution or the Industrial Revolution. With the combining forces of science and technology, the theoretical and the empirical could be used together to conquer nature. The early

²White, "Historical Roots", p. 1204.

scientists of the Western world were Christian, and their scientific investigations into the workings of nature were carried out in the name of Christianity. In fact, White says, it was not until the late eighteenth century that scientists could operate without the premise of there being a God.

White believes that there has to be a whole rethinking of humanity's place in creation and its relationship to the rest of creation. This leads into the realm of religious dogma and it is here, according to White, our hope lies. Humans have to find a new religious ethic or rethink the old one. He suggests that St. Francis of Assisi, with his teachings on the intrinsic worth of all creatures, may be of some help here. The Christian axiom that, "Nature has no reason for existence save to serve man,"³ must be countered with a different axiom that is more favourable to nature. While not suggesting that modern humanity go back to pagan belief, he does argue that the value of creation needs to be reconsidered in the teachings of the Christian faith in the Western world. One thing is certain, more science and technology is not the solution to the ecological problem.⁴

While White's hypothesis that many, if not all, of our ecological problems can be rooted in the Judeo-Christian

³White, p. 1207.

⁴White, p. 1206.

tradition may have some merit, many components of his hypothesis are far too sweeping and general. The scope of evidence for his argument is limited and he has chosen to neglect Scripture in context choosing instead to rely primarily on secondary sources for his information. Some of the examples he uses to defend his hypothesis can also be used to counter his argument. These will be considered as the thesis progresses. Nevertheless, his mastery hypothesis does have a following from both the scientific and religious communities. For example, David Suzuki, the Canadian environmentalist, in his television series "A Planet for the Taking", assumed the same thesis as White regarding the ecological crisis and Judeo-Christian tradition. In each case the Judeo-Christian tradition came out to be the culprit, and, in White's phrase, "bears a huge burden of guilt."⁵

It is the intention of this work to refute the hypothesis of Lynn White and his followers by challenging his statement that the Judeo-Christian tradition is to blame for the ecological crisis. In particular, his interpretation of Genesis 1:28 will be challenged in context of the ecological question. Moreover, we will show that ancient and medieval Jewish-Christian exegesis of the Bible does not support White's thesis.

⁵White, p. 1207.

Jeremy Cohen's Be Fertile and Increase, Fill the Earth and Master It ⁶ shows that there is no evidence to support the argument that pre-modern Jews or Christians ever used Genesis 1:28 as a licence to exploit the environment. He proposes that the exploitation of nature is the result of modern avarice and irresponsibility.⁷ For Cohen, humanity, with its unique position in creation, is to some degree in partnership with God in the ongoing work of creation.

The roots of the ecological crisis are not nearly as simple as White avers. We intend to show this by examining the work of Michael Foster, Harvey Cox and Stanley Jaki. All three of these writers have some of the same suppositions as White, especially the idea that Christianity has given humans "dominion" over the earth, but they put the discussion of the issues in a much wider context.

To begin this part of our study the thesis of Michael Foster will be examined. Writing earlier than White, he addressed some of the same questions but in a much broader context. Although White's article focuses on many issues as they relate to our topic there is one important issue that he appears to have overlooked. He never really addresses the question of what is the role of science and technology in the

⁶Jeremy Cohen, Be Fertile and Increase, Fill the Earth and Master It (New York: Cornell University Press, 1989).

⁷Cohen, p. 16.

ecological crisis. While he says that more science and technology is not the answer, he does not say what their role ought to be. This discussion needs to be pursued and one of the best exemplars who has given this question serious consideration is Foster who agrees with White's premise that as long as nature had a sacred element neither a theology nor a science of nature could develop. There had to have been a distinction between the natural and the divine realm for western civilization to have developed the way it did. Foster, however, blames the ecological crisis on the growth of natural science and the change in attitude on the part of humans regarding nature. In the past, people were guided by nature but now it is something over which to have dominion. That which the Ancients worshipped, the Moderns approach as an object to be mastered.⁸ This has created a serious problem. Humanity is now in a position of great power and needs guidance as never before. However, nature's guidance is no longer present and humanity acutely feels this loss. Foster maintains that the solution may be found in the same natural science as he has blamed for the problem. Modern natural science is the agency by which humanity will come to see its

⁸Michael Foster, "Some Remarks On The Relations Of Science And Religion", The Christian News-Letter (Supplement), 299 (November 26, 1947), pp.5-16. See also Cameron Wybrow, Creation, Nature, And Political Order In The Philosophy Of Michael Foster (1903-1959) (New York: The Edwin Mellen Press, 1992).

dependency on God. In fact he sees a kinship between Christianity and science. He believes that human intelligence can solve all the apparent mysteries of nature.⁹ It is as members of the body of Christ that this control over nature must be exercised. Any integration that is to take place should not be with nature, but with the body of Christ. This will be dealt with in more detail later.

Cox, like White, believes that Christianity set humanity over against nature. A perception of humanity as having a right to dominion is a correct interpretation for Genesis 1:28. He supports the mastery hypothesis and does not allow for the notion of kinship between humanity and nature. In agreement with Foster, he too argues that humans must exercise control over nature and neither the human being nor God can be defined in terms of their relationship to nature.¹⁰ This supports his argument for a transcendent God and a humanity that is totally separated from the rest of creation.

⁹Michael Foster, "Greek and Christian Ideas of Nature", in Creation, Nature, And Political Order In The Philosophy Of Michael Foster (1903-1959), ed. Cameron Wybrow (Lewiston: The Edwin Mellen Press, 1992), p. 175. Originally published in The Christian Scholar, XLI, September 1958, pp. 361-366.

¹⁰Harvey Cox, The Secular City (New York: The Macmillan Company, 1968), p.21. See Also: Harvey Cox, God's Revolution (Valley Forge: The Judson Press, 1969); Harvey Cox, Just As I Am (Nashville: Abingdon Press, 1983); Harvey Cox, On Not Leaving It To The Snake (London: SCM Press, 1968); Harvey Cox, Religion In The Secular City (New York: Simon And Schuster, Inc., 1984).

However, in contrast to White, Cox's focus is on the positive side of humanity's dominion over creation and on the positive advancements of science and technology which have resulted from that dominance. It is interesting to note though that Cox would argue that the dominion given to humanity over nature is not to be exploitative. God created the world and cares for it and people are to demonstrate a responsible attitude towards all of the created order. However, according to Cox, it is through history that God works and not through nature.

A third issue that needs some discussion is the whole question of what do we do in the face of technological advancements which seem to be harming the environment. This is a question which we will come back to in the concluding chapter. White does not give a realistic solution to this problem. His suggestion that we make St. Francis patron saint for ecologists is hardly a solution that will solve our ecological problems as we advance towards the twenty-first century. While 'getting back to nature' may have its merits, it is not really a feasible way of life for all people in the latter part of the twentieth century, nor will it adequately provide solutions. Stanley L. Jaki argues that White's suggestion is not even true to our Christian calling. He believes that intrinsic to Christianity is science. For him, science is good and it is God's will that it progress.

In his study Jaki concludes that for the Hebrews there was no deification of nature. External nature was evidence of a transcendent God who put the entire universe here as a dwelling place for humanity.¹¹ He supports this view by reference to the second and earlier account of creation as found in Genesis. There he sees the emphasis on humans and not on nature. In agreement with White, Cox and Poster, Jaki maintains that the earliest Biblical story of creation does not allow for a belief in the intrinsic worth of nature. He too believes that humanity has lost its sense of direction. The result of this is that science has been allowed to run out of control. A danger here is that science cannot be looked to for norms and goals. It is to the people of science that we must look for these. He argues that if Biblical or Christian sources can be blamed for so many of the ecological problems then these same sources must be given credit for the creation of science and technology. In response to those who would say that science and scientists have rejected Christian theism and its teaching of morality, Jaki would argue that it is

¹¹Stanley L. Jaki, Science And Creation (New York: Science History Publications, 1974), p.139. See also Stanley L. Jaki, The Absolute Beneath The Relative (Landham: University Press of America, 1988), Stanley L. Jaki, Chance or Reality And Other Essays (Lanham: University Press of America, 1986); Stanley L. Jaki, The Origin Of Science And The Science Of Its Origin (South Bend: Regnery/Gateway, Inc., 1978); Stanley L. Jaki, The Road Of Science And The Ways To God (Chicago: The University of Chicago Press, 1978).

therefore senseless to blame the ecological crisis on Christianity. He therefore departs here from White's basic premise. He does not, however, leave the argument there. He believes that science does have an ethical dimension, and much of what is being done in science is in keeping with the will of God. In that sense science can be seen as leading to the ways of God. This results in a connection between science and ethics.¹²

After examining the three views introduced above we will examine how various Scripture passages have been interpreted down through the ages in the Judeo-Christian tradition. In so doing, I will give special consideration to the impact of Baconianism. Much of our focus will be on Genesis 1:28 in an attempt to place it in its literary and historical context. The terms "subdue" and "dominion" as used in Genesis 1:28 will have to be examined and consideration given to the implications. This process will help determine whether or not Lynn White's hypothesis is valid. It will also help determine the human being's role or place in creation as it is presented in the context of Scripture. Through this study it is proposed that an answer can be found to the question: Does Christianity bear a burden of guilt for the ecological crisis? The conclusion to this question will be instrumental in

¹²Stanley L. Jaki, The Road Of Science And The Ways To God (Chicago: The University of Chicago Press, 1978) p. 307.

helping develop a sound ethical Christian response to the ecological problem in an age of science and technology. The thesis will be that taken in context, Genesis 1:28 does not support the mastery hypothesis. Thus through our study we hope to contribute to scholarship by adding new dimensions to the debate initiated by Lynn White. Much of the debate has not thoroughly examined the Biblical text. Through a concentrated analysis of the Biblical text it will be shown that the issue surrounding the ecological crisis and its roots is more complex than White portrays. There are several interrelated issues, as has already been indicated, which require discussion. Only by carefully differentiating the issues and seeing how they relate to each other will we be able to arrive at a sound judgement on the role of Christianity and the ecological crisis.

CHAPTER 1

The "Mastery" Hypothesis

Mastery and the Ecological Crisis: Lynn White

The phrase "mastery hypothesis" was coined by Cameron Wybrow in reference to the argument put forth by those who said that nature is inanimate and was created to be controlled by humans. Amongst the "mastery writers", some of whom are Harvey Cox, Stanley Jaki, Michael Foster and Lynn White, opinions differ regarding the positive and negative effects of this mastery hypothesis. The divergent views result from the differing positions taken by particular scholars. If the scholar focuses on the advancements in science and technology and their subsequent benefits for humankind then the mastery of creation is a good thing. If, however, the scholar focuses on these same advances and views them as threats to creation as a result of environmental damage or nuclear threats then the position is quite different. One commonality of these scholars, regardless of which side of the argument they take, is the agreement that Judeo-Christian teachings have played a role in humanity's changed attitude towards creation. It is Lynn White's contention that the root of the ecological crisis can be traced to Judeo-Christian teachings. He argues that before these religious traditions humanity lived in a closer relationship with nature and did not see itself in a dominant role. In fact for a long period creation was revered and at

times worshipped. With the emergence of Judaism, and later Christianity, humanity's perception of creation and its place in it changed dramatically. According to White these traditions taught humanity to take control and use all of creation for its own benefit without any real regard for the well-being of the rest of creation. Jews and Christians could find support for this position in Scripture, particularly in Genesis 1:28. The result has been an ecological crisis, which White argues, has its roots in Judeo-Christian teachings.

White's "The Historical Roots Of Our Ecologic Crisis" has been the starting point for much of the discussion about Christianity's role in creating the ecological crisis. He recognizes that as far back as a human populace can be traced, environments in which people lived have been changed to suit their needs for survival and comfort. Human are constantly changing their habitat. As civilization progressed and as human needs changed, sometimes unintentionally in the process, their natural surroundings were also changed. In other cases the changes were very intentional and implemented for the advancement or comfort of humankind. The exact reasons for the changes cannot always be traced and the exact effects of some of the changes cannot always be researched. White writes:

People, then, have always been a dynamic element in their own environment, but in the present state of historical scholarship we usually do not know

exactly when, where, or with what effects man-induced changes came.¹³

It is this line of thinking in White's argument which needs to be pursued. On the one hand he argues that humanity has always attempted to control and manipulate the environment, while on the other hand he wishes to present the argument that such manipulation and control is the result of Judeo-Christian teaching. R.V. Young Jr. makes reference to this weakness in White's argument. He writes:

Lynn White, apparently without noticing the fatal consequences for his own argument, points out that "for six millennia at least, the banks of the lower Nile have been a human artifact rather than the swampy African jungle which nature, apart from man would have made it." Now during the last six thousand years Egypt has been a virtual carnival of various religions, but for long stretches the ancient Egyptians literally worshipped the Nile. And yet is a more drastic transformation of the environment (coastal wetlands at that!) conceivable?¹⁴

Young goes on to make reference to the fact that the pagan Romans are documented as having had destructive agricultural methods. He also makes reference to Japan where in the last hundred years technology and industrialism have progressed obviously without significant Judeo-Christian influence. This oriental country has never been considered Christian and in

¹³ White, p. 1203.

¹⁴R.V. Young Jr. "Christianity and Ecology" National Review Dec. 20, 1974, p. 1456.

fact held to its traditional religious beliefs well into this century. The correlation between scientific advancement and Christianity cannot be supported if one uses these by way of examples. It also weakens the argument that it is to the Orient that one ought to look for a proper approach to nature.¹⁵ This weakness in White's argument cannot be overlooked. Even if Judeo-Christian teaching has to take some of the blame for the ecological crisis today, it cannot take the total blame for the origin of the crisis nor can it be portrayed as the sole culprit for the present ecological dilemma. That does not negate the urgency of the problem, nor does it totally take away the blame from Christianity, but it does present a weakness in White's argument.

A brief historical overview of humanity and its impact on the rest of creation will help put the problem in a better perspective. For generations the changes that humans caused to the creation did not drastically affect the environment but with the 'marriage' of science and technology in the nineteenth century there was unleashed a power through humanity's knowledge and inventiveness that threatened all existence. The result has led to an ecological disaster hat according to White, "neither atavism nor prettification" will

¹⁵Young, p. 1456.

erase.¹⁶

In the nineteenth century, class distinctions in the Western world began breaking down and this had an impact on all realms of human life, as well as on science and technology. White maintains that as the Western world became more egalitarian this allowed for the union of technology and science. Prior to the nineteenth century technology was equated with the lower, more uneducated classes, while science was aristocratic and intellectual. As class barriers broke down so too did the clear separation of science and technology. This allowed for incredible and rapid advancement in areas of science, industry, and quality of life in general. The theoretical and the empirical could now combine and this would make for unprecedented scientific and technological progress. These rapid advancements occurred in the Western world: the world of Christianity. White even goes so far as to say that to this day significant science is still Occidental in style and method.¹⁷ This may be true but again the question must be raised as to whether or not there is a correlation between this progress and the "marriage" of science and technology and the teachings of the Judeo-Christian faith. It seems most unusual that White makes no

¹⁶White, p. 1204.

¹⁷White, p. 1204.

reference to the fact that this "marriage" and rapid advancement did not occur to any significant degree until many centuries later. Young makes this very point when responding to Arnold J. Toynbee's position:

Even Professor Toynbee seems at least vaguely aware of a crucial flaw in his argument. As he points out: "The application of science to technology and the consequent outbreak of the industrial Revolution lagged about 26 centuries behind the probable date of the compilation of the Book of Genesis."¹⁸

One would appear to be grasping for straws in trying to show a strong direct correlation between two factors that are separated by at least twenty-six hundred years. Richard Hiers notes something of the same weakness in the argument. He writes:

White's thesis is that Israelite (or Jewish) and later Christian ways of so relating were peculiarly exploitive and arrogant. (Interestingly, although White observes that 'the monster mammals' of the Pleistocene period may have been exterminated in consequence of man's hunting techniques, he does not mention that this development necessarily antedated any possible pernicious Israelite or Christian influence by several millennia.)¹⁹

From these historical references it is evident that something of an aggressive attitude towards nature occurred long before either Judaism or Christianity arrived on the scene. Humanity

¹⁸Young, p. 1457.

¹⁹Richard H. Hiers, "Ecology, Biblical Theology, and Methodology: Biblical Perspectives On The Environment," Zygon, Vol. 19, no. 1 (March 1984), 51.

demonstrating a dominant attitude and behaviour towards nature appears to have been a part of various cultures from time immemorial.

This leads to a second acknowledgement which must be made in this discussion. The role of the western world in the advancement of science and technology is important since it is in the western world that the Judeo-Christian traditions originated. According to White, leadership by the West in areas of science and technology can be traced back before the Scientific or the Industrial Revolutions. He gives several examples to support his argument, i.e., as early as 1000 A.D. the West was using water power in industry.²⁰ He wishes to use these examples to strengthen his argument that Judeo-Christian teachings caused humanity to change its attitude regarding its relationship with the rest of creation. One area he focuses on for this part of his argument is regarding changes in farming methods and their correlation to religious beliefs. He traces western attitudes towards nature to changes in farming methods because through the ages every culture has been dependent on agriculture and he maintains that this says something about their religious beliefs. Agricultural methods that were used in the Near East and the Mediterranean changed as civilization moved into Northern

²⁰White, p. 1204.

Europe. A more aggressive type of farming was developed in Northern Europe. Up to this point, the writer has no argument with White's assertions. The argument is with his trying to somehow relate these changes to the people's religious beliefs. In Northern Europe the climate was wet and the soil heavier. Here, for successful farming, the soil had to be turned, not merely scratched. More oxen were required to do the work and a form of commune farming was begun. The important result is that there was, out of necessity for survival, a much more aggressive attitude developing towards the soil. People now became the aggressors and with this aggression there developed a change in attitude towards the earth. White places great emphasis on this change in attitude and its long-term effects. He writes:

Man's relation to the soil was profoundly changed. Formerly man had been part of nature; now he was the exploiter of nature. Nowhere else in the world did farmers develop any analogous agricultural implement. Is it coincidence that modern technology, with its ruthlessness toward nature, has so largely been produced by descendants of these peasants of Northern Europe?²¹

White does not think so and he puts forth the argument that people's attitude regarding their ecology is determined by how they see themselves in relation to the environment around them. While one might agree that it is not coincidence that modern technology has been largely produced by descendants of

²¹White, p. 1205.

Northern European peasants, that does not necessarily mean that one agrees that this advancement in technology has anything to do with religious teachings or beliefs. White, however, presents the view that it does tie in with religious beliefs, especially with Judeo-Christian beliefs. He writes, "human ecology is deeply conditioned by beliefs about our nature and destiny--that is, by religion."²² Here, for White, is the crux of the matter. However, there appears to be a fundamental flaw in White's argument here as well. He overlooks the survival instinct of humanity and obviously without realizing it, overlooks his earlier statements regarding how humanity has always changed its habitat to survive or progress. The ploughing of the soil, rather than the scratching of the surface, appears to have been the result of necessity. Farming in this climate required a different approach than that of the gentler Mediterranean climate. There is really no evidence that this was related to religious tradition or beliefs.

White argues that regardless of how much modern persons may appear to be secular and appear to be making decisions that have no apparent religious connections, people of the Western world, and in many other parts of the world, are still influenced by Christian axioms. It is in this regard that

²²White, p. 1205.

White inquires into the Christian teaching on humanity and its place in creation. He emphatically places the blame for the ecological crisis where he believes it belongs, in the Judeo-Christian teachings. White writes, "especially in its Western form, Christianity is the most anthropocentric religion the world has seen".²³

White argues that according to Judeo-Christian teaching humanity is above the rest of creation, it is the reason for creation, and there is a dualism between humanity and the rest of nature. He argues as well that it is a fundamental Christian teaching that humans control and exploit nature for their own benefit.²⁴ With the demise of paganism from the people's faith the elements of nature which had been viewed as sacred, and in some cases divine, were removed. While nature may be seen as the work of God, it was in no way to be seen as sharing in that divinity. The belief developed that it was given to humanity by God to be used as was seen necessary for the improvement of human life. If that were at the expense of other parts of nature then that was really only of secondary concern, if that.

White also believes that originally nature was studied as a means whereby people could better understand the nature of

²³White, p. 1205.

²⁴White, p. 1206.

God, since God was revealed through the elements of nature. As time went on, however, it became a search to try and find how the mind of God works through the operations of the universe. Up to and including the first half of the eighteenth century nature was always studied with the acknowledgement of a Superior Being. However, beginning in the latter part of the eighteenth century, many scientists rejected any belief in a Superior God and their approach to nature changed with this change in belief.²⁵ Because for several centuries science developed and had its roots in cultures of Western Christianity, White is of the opinion that this same Christianity must be held accountable for the ecological crisis being faced today. He writes:

But as we now recognize, somewhat over a century ago science and technology, hitherto quite separate activities, joined to give mankind powers which to judge by many of the ecologic effects, are out of control. If so, Christianity bears a huge burden of guilt.²⁶

There is no doubt then as to where White places the blame for the ecological crisis. Placing the guilt is one thing, while offering a viable solution to the problem is quite another. White's guilty verdict for Christianity will be examined as the thesis progresses. A closer examination of Judeo-Christian Scripture is required and an accurate review of the teachings

²⁵White, p. 1206.

²⁶White, p. 1207.

of the early and medieval church will need to be completed in order to demonstrate that White's accusation is either valid or invalid.

Whether or not one agrees with his guilty verdict for Christianity, one cannot deny the fact that there is an ecological crisis which requires some viable solutions. White does not conclude with his accusations regarding Judeo-Christian teachings. He does offer some solutions. It is these suggested solutions to the ecological problem which requires some attention at this point. To begin, he does not see science and technology as being a viable solution. The problem here, he argues, is that our science and technology have come out of Christian attitudes, and in spite of themselves, people cannot seem to change these attitudes towards nature. It is a very anthropocentric attitude. As long as humanity thinks this way, White feels it is not possible for the rest of creation to be viewed from the proper perspective. Nor does he see the religions of the East as a viable option for the West. Western people, for the most part, cannot really be expected to fully accept Eastern beliefs and even if they did these religions are steeped in their own history. To simply change from one tradition to another would not necessarily bring about the desired results.

Although he has accused Christianity as being at the root of the ecological problem, he does not totally abandon it. It

appears, however, that he looks within the tradition only because nothing better has come along to replace it. More will be said on this shortly. However, what White suggests as a possible solution to the present problem is certainly questionable from a practical point of view. He suggests that modern humanity should reconsider the life and teachings of St. Francis of Assisi and make him the patron saint for ecologists.²⁷ He suggests this because of Assisi's teachings regarding all of creation. In these teachings can be found the idea of an equality of all creatures on earth. The human being does not seem to be at the centre, but a part of all that is. While one does not deny that St. Francis taught a great respect for all of creation, the troublesome thing about White's proposal that he be made patron saint for ecologists is that White overlooks so many past and modern day Christians who have also shown praise for the environment. Young notes this when he writes:

What is, therefore, most preposterous in the argument set forth by the historians White and Toynbee is their utter disregard for history. Both of them try to pass off men like Roger Bacon, Galileo, Newton, and Bishop Sprat as 'typical' expositors of the Christian view of nature, while St. Francis of Assisi, a canonized saint, is described as some sort of fluke.²⁸

He goes on to make reference to such people as St. Thomas

²⁷White, p. 1207.

²⁸Young, p. 1458.

Aquinas, George Herbert, Gerard Manley Hopkins, T.S. Eliot, C.S. Lewis and J.R.R. Tolkien. Each of these Christian people made witness to the beauty and value of creation, yet White chooses to make reference only to St. Francis of Asissi leaving the impression that, even if unintentionally, one is hard pressed to find other examples of well-known Christians to demonstrate an attitude towards nature that is not aggressive or destructive.

White is fully aware that the majority of people in modern secular culture would argue that they do not develop their attitudes towards creation as a result of Christian teachings. This matters little for him. He believes that until a new set of values replaces those of Christianity the crisis can only worsen. As long as people have an anthropocentric view of themselves, which of course results in a negation of the intrinsic value of the rest of nature, there is very little hope for improvement in the ecological crisis.²⁹ It is in the area of religion that the solution must be found, since according to White it is here the causes of the problem can be found. He writes:

Since the roots of our trouble are so largely religious, the remedy must also be essentially religious, whether we call it that or not. We must rethink and refeel our nature and destiny.³⁰

²⁹White, p. 1207

³⁰White, p. 1207.

This is a sweeping statement and while there is little doubt that there is a need to 'rethink and refeel our nature', White's conclusion that the "roots of our troubles are so largely religious" must be questioned. White appears to be very selective in choosing support for his argument while overlooking considerations that would refute his position. As a historian, he is either lacking some important knowledge or he has chosen to neglect some important points. Several areas of weakness in White's hypothesis have already been examined but one that needs a detailed examination will be his usage of Scripture to support his argument. The Scripture passage on which he relies most heavily is Genesis 1:28. This passage, along with other significant ones, will be considered in Chapter 2 of this work. It is there that it will be demonstrated that, in addition to White's other weaknesses in his argument, his argument on Biblical grounds is also without sufficient foundation.

Mastery, Science, and Technology: Foster, Cox, and Jaki

On the part of many people there has developed a detrimental approach to creation and White's accusations may not be totally without support. However, much of the basis of his argument does lack support. In fact, understood properly the Judeo-Christian tradition may hold the answers to the

solutions for the ecological crisis. These solutions, however, will not be found in isolation from science and technology. Humanity cannot revert to an age of innocence or ignorance in these areas. Therefore, science and technology must be held accountable for its actions. Modern day Christians have an obligation to teach and live in such a way that the values taught by Christianity, which for some have been lost in interpretation of Scripture, are regained. There are various views as to how this can best be done. Michael Foster is one such person who has made some suggestions in this area.

While White's article focuses on many issues related to the ecological crisis, there is one important issue that he appears to have overlooked. He never really addresses the question of what is the role of science and technology in the ecological crisis. Not only does he not see these two areas of development as offering the solutions to the problem, he does not explain what he sees as being their role. To propose that they cannot be looked to for the solutions might be a logical argument, but one cannot deny the fact that science and technology are very much a part of modern day living and as stated above it is impossible to go back to a lifestyle that is not dependent on these areas of development. Indeed, most likely it is not even desirable. Therefore, in any serious consideration of the ecological crisis it would seem

that the role of science and technology must be taken into account, and Foster is one of the best exemplars of their role.

A good place to begin the deliberations on Foster is with a statement he made in the "Supplement to the Christian News-Letter" in 1947:

... we have gained enormously in power to control nature, but not in the knowledge which would enable us to use that power rightly.³¹

For Foster, having the power to control nature is a good thing and it is what God intended for humanity. The power to control is not the problem; it is how this power is used. In common with other mastery writers, he uses the Genesis creation stories and Psalm 8 to support his theory that dominion over nature and investigations into all realms of nature is a part of the plan of God for human beings. He argues:

The attitude of man to nature, characteristic of modern science and characteristically un-Greek, has a Biblical source. In Genesis 1:28 man is commanded "replenish the earth and subdue it." In Psalm 8 the psalmist says "Thou madest him [man] to have dominion over the works of thy hands, thou hast put all things under his feet."³²

³¹Foster, "Some Remarks on the Relations of Science and Religion", in Creation, Nature, And Political Order In the Philosophy of Michael Foster (1903-1959), ed. Cameron Wybrow (Lampeter: The Edwin Mellen Press, 1992), p. 149.

³²Foster, "Greek And Christian Ideas Of Nature", p. 174.

If one were to rely only on these Biblical passages, as Foster does, then the logical conclusion is that, to be true to the Christian calling, humanity had to advance scientifically and technologically and take control of nature. The paganism of Greek religion had to be shed in order that humanity could progress in science. With that progression eventually there came the power to dominate or control nature. The fact that it took sixteen centuries for people to abandon totally their pagan beliefs is not surprising. Foster maintains that it is "one thing to adopt a faith but quite a different thing to let that faith permeate all departments of thought and action."¹¹ Early Christianity was infiltrated by Greek thought and belief and only when these Greek elements had been removed could modern natural science develop.

For our purposes a brief overview of Greek belief and its retarding effects on modern natural science is worthy of consideration since it is modern natural science that has put humanity in a place of control over nature.

The identification of God with Nature finds its earliest expression in the deification of natural powers which is characteristic of the Greek polytheistic religion. So long as this identification is both naive and complete, so long, e.g., as the god is simply not distinguished at all from the natural object, it does not seem, indeed,

¹¹Foster, "Man's Idea of Nature", in Creation, Nature, and Political Order in the Philosophy of Michael Foster, p. 167.

that the religion founded upon it can give rise either to a theology or to a science of nature.³⁴

Foster sees modern natural science as beginning with Descartes and Bacon. From their time on science was very different in its approach to nature than it had been before.

Foster would agree that the Greeks and Romans were somewhat advanced in science, in particular a science or philosophy of nature. There was, however, within this science a religious element that contained a fear of the gods and a view of nature that saw it as alive and a force with a will. Regarding ancient science, Foster says it was an intellectualized form of nature-worship. He writes:

Hence it is characteristic of ancient natural philosophy that its whole effort is to conform our thought to the nature of things. This nature is thought of as being changeless and eternal. The idea that it might be subjected to mastery by human will could hardly have been entertained by a Greek thinker. This was the idea which Bacon and Descartes introduced into philosophy....³⁵

Foster has a similar premise to White in that he thinks as long as nature had a sacred element neither a theology as we now know it nor a science of nature could develop. There had to be a distinction between the natural and the divine. It is

³⁴Michael B. Foster, "The Christian Doctrine of Creation And The Rise Of Modern Natural Science", Mind: A Quarterly Review of Psychology and Philosophy, XLIII (October 1934), 456.

³⁵Michael Foster, "Some Remarks On The Relations Of Science And Religion", The Christian News-Letter, 299 (November 26, 1947), 5.

in the area of ancient and modern science that there is a noticeable difference in attitude towards nature. In Foster's words, "the moderns approach it as an object to be mastered, the ancients as an object to be worshipped."³⁶ Modern science, according to Foster, has put humanity in the present state of danger in two ways:

- (i) It has given man the power over nature which he can now abuse.
- (ii) Modern natural science, in the same measure in which it has submitted nature to man's control, has emancipated man from guidance by nature.³⁷

It is this second one that is the real cause of the problem as far as Foster is concerned. For thousands of years humanity was guided by various elements in nature. Survival both physically and psychologically was believed to have depended on this guidance. Placed in a position of power and control, humanity can no longer look to nature for guidance. Foster proposes that people have a real consciousness of crisis because of a feeling of having been eradicated from nature and denied its guidance.³⁸ The solution, however, is not to revert to paganism and declare nature as being divine. According to Foster there is a more Christian approach where nature is revered as the work of God, but it is not worshipped

³⁶Foster, "Relations of Science and Religion", p. 150.

³⁷Foster, "Relations of Science and Religion", p. 151.

³⁸Foster, "Relations of Science and Religion", p. 151.

or given divine attributes. It is also his contention that modern natural science is not opposed to this Christian view of creation. Christian teaching maintains that all of nature was created by God, so too was the firmament. In that sense all of creation was made according to the will of God. By the time modern natural science appeared on the scene Christians were ready to accept "the idea that nature was a machine and not an organism."³⁹ Having been created by an omnipotent God, the laws of nature could be depended on to be consistent. This allowed for the development of a modern science of nature.

On the Christian conception ... nature is made by God, but is not God. There is an abrupt break between nature and God. Divine worship is to be paid to God alone, who is wholly other than nature. Nature is not divine.⁴⁰

As a result of this belief there are two important consequences which, according to Foster, show the kinship of the Christian with the scientific view:

- (i) Nature is not in itself mysterious.
- (ii) The mental attitude of science is discontinuous with that of worship.⁴¹

This brings us back to the question of what has gone wrong, and a possible solution to the problem of the ecological

³⁹Foster, "Relations of Science and Religion", p. 166.

⁴⁰Foster, "Greek and Christian Ideas of Nature", p. 171.

⁴¹Foster, "Greek and Christian Ideas of Nature", p. 171.

crisis. It is here that Foster takes us into the religious realm, in particular into the Christian realm, to help us find a solution. As has already been stated, it is not that humanity has dominion over creation that is the problem, but it is that humanity does not see itself as a member of the body of Christ. Humanity has seized the power and tried to function independently of a greater power. Foster writes:

The remedy is not that man should surrender these powers and attempt to integrate himself again into nature, but that retaining these powers he should integrate himself into the body of Christ.⁴²

Eventually all things will come under God, but in the interim it is God's will that all things be subdued under the sovereignty of Christ. Christ's sovereignty is accomplished through the church which is seen as the body of Christ on earth. Foster believes that if people exercised their dominion over creation as members of the body of Christ then their behaviour would be of a responsible nature and their advancements in science and technology would have a positive impact for humanity. Rolf Gruner agrees with Foster on this point:

Contrary to common belief, the Christian faith does not put any obstacles in the way of such investigations [into nature]. On the contrary they are not only allowed but positively demanded of the believers, as can be seen from passages in Scripture such as Eccles. 1:13, where it is said that God has given man the task 'to search out all

⁴²Foster, "Relations of Science and Nature", p. 156.

that is done under heaven'.⁴³

Here Gruner, in agreement with Foster, sees scientific investigation as fulfilling an obligation to God and as supported by Biblical passages. Harvey Cox, whom we will consider next in our discussion, will support this premise as well.

To briefly summarize Foster then it is not possible or faithful to the Christian calling to try to revert to a time when humanity did not have control over nature. Nor is it desirable or right not to use this power over nature. If humanity used this power in the knowledge that it is a member of the body of Christ then the desired behaviour and attitude would be acquired and the ecological crisis resolved. This will only be accomplished through both the advancements of modern science and a Christian approach to nature.

A second person who proposes that it is only when humanity controls, or attempts to control, its natural environment that it is fulfilling the requirements of God is Harvey Cox. For him the whole question on humanity's right to have dominion over all of creation is not a question that is open for discussion. While in agreement with Foster that humanity must control or dominate, how this is done needs reassessing. However, the privileged place of humanity as

⁴³ Rolf Gruner, "Science, Nature and Christianity", Journal of Theological Studies, XXVII (April 1975), 58.

dominator is a certainty for Cox. He argues that this view has support and is rooted in Biblical teaching. In his book, On Not Leaving It To The Snake, he asserts:

To be a man means to care for and love the fellow man Eve and with her to have dominion over the earth, to name and care for creatures whom God places in the human world of freedom. To weasel out of any of these privileges is to commit the sin of acedia, to relapse into sloth.⁴⁴

Sloth, as far as Cox is concerned, is humanity's greatest sin. He sees it as an unwillingness on the part of people to be everything that they were intended to be. He says that it can best be understood through the Latin Acedia. Acedia comes from the Greek words not caring (a-not; kedos-care).⁴⁵ Whenever a person refuses to have dominion over all of creation that person is committing the sin of acedia.

For Cox then it is not only humanity's right to have dominion; it is its duty to God. In God's Revolution, he writes:

"He [God] wants man to have dominion over the world, to take care of it responsibly, to celebrate the astonishing fact that it is here, to thank God for it, to participate joyfully in it."⁴⁶

Thus, Cox is in agreement with White's view of how western persons perceive their role in creation. The difference is

⁴⁴Harvey Cox, On Not Leaving It To The Snake (London: SCM Press, 1968), pp. xvi-xvii.

⁴⁵Cox, p. ix.

⁴⁶Cox, God's Revolution, p. 19.

that for Cox this is a correct interpretation of Genesis 1:28 whereas for White it is this interpretation that needs to be assessed. White sees humanity as viewing its dominion status as a licence to exploit creation, while Cox sees it as a benefit in that science, with all of its progress and achievements, is allowed to develop for the benefit of humanity. Here Cox is in agreement with Francis Bacon who will be discussed later in this thesis. He does differ, however, in that he also includes the idea that humanity has a responsibility regarding the rest of creation. Dominion with responsibility is quite different from dominion without responsibility. Taken seriously this approach towards creation would rule out an exploitive attitude. White would argue that this idea of responsibility has been lost somewhere along the way.

White and Cox are also in agreement in that each maintains that it was only when nature became desanctified that scientific and technological advancements could be made. While not eradicating the 'holy', Cox eradicates the idea of anything in nature being sanctified. God is a transcendent being and God alone, separate from that which has been created, is to be worshipped.

Freed of its sacred aura, the world can now be recreated by man. ... Space is freed from magic so

man can thankfully use it and delight in it.⁴⁷

Agreeing with Barth in this regard, Cox sees the world as a place created for humanity.⁴⁸ It is up to people to take full control of all that nature provides and to make no apology for taking that control.

In the age in which we presently live, terms like control and dominance are not in vogue and even the term empower is becoming less acceptable. Such terms, however, do not pose any problem for Cox as they are used in relationship to humanity's place or role in nature. For him, the human and the products of nature are two separate entities. The human being has a unique position in creation and Cox does not allow for the idea of kinship between nature and humans. It is his conviction that neither the human being, nor God can be defined in terms of their relationship to nature.

With no kinship to nature, and nature having no sanctity, both humanity and nature are free for history, and nature is made available for humans to use.⁴⁹ This supports his argument for a transcendent God and for a humanity that is totally separated from nature.

⁴⁷Harvey Cox, On Not Leaving It To The Snake (London: SCM Press Ltd., 1968), p. 119.

⁴⁸Cox, p. 120.

⁴⁹Harvey Cox, The Secular City (New York: The Macmillan Co., 1968), p. 21.

Cox does qualify what he means by nature being available for people to use. This takes us back to the idea of showing responsibility towards nature and all of creation. The distinct separation between nature and humans which he is so emphatic about does not mean that people have the right to adopt an abusive attitude or behaviour. God loves the world and the dominion that is given to the human being is given with that understanding. For Cox, "this world is the theatre of God's being with man."⁵⁰ The sin of humanity is that while God has given people a world over which they are to have dominion, they have allowed the world to have dominion over them. Frederick Elder, in his book Crisis in Eden writes, "Cox... is ultimately God-centred, but in the created order strongly man-centred."⁵¹ Only when people take their rightful place in creation, that of dominator, will they be doing what God requires of them. Creation, in and of itself, appears to have no intrinsic worth and is certainly not the arena in which God is revealed or active.

It is in the political arena, Cox argues, that God is active. He argues strongly that God is interested in political events as they relate to humanity and has only a

⁵⁰Harvey Cox, God's Revolution And Man's Responsibility (Valley Forge: The Judson Press, 1969), p. 21.

⁵¹Frederick Elder, Crisis In Eden (Nashville: Abingdon Press, 1970), p. 76.

secondary interest in nature.⁵² It is through political events that God interacts with people. It is here that God operates and is present. Nature is important only in as much as it is used by God or humanity to achieve what each has set out to do. It is the historical event, and God's interaction with humanity in that event, that is important; not nature's role in the event.

While much of what Cox has to say regarding humanity's place in creation and its rightful treatment of creation can find limited support in Biblical teaching it only holds up when it is supported by isolated passages or passages that are taken out of context. He too bases his argument primarily on one Genesis creation account, the so-called Yahwistic account. He did not discuss other passages of Scripture which might lead one to conclude that all elements of nature have intrinsic value apart from humanity. As with White, there are references made to isolated Scriptural passages without any consideration being given to the overall theme or tone of Scripture regarding God's creation. For example, throughout the creation story the reader is told that God saw all that was created and it was good and in Psalm 8 the beauty and greatness of nature is certainly considered as the Psalmist praises and thanks Yahweh. Cox chooses not to consider this

⁵²Cox, God's Revolution, p. 22.

in his argument. In addition to his usage of the Yahwistic account he also uses one other verse from the Priestly account, that verse being Genesis 1:28. In this verse humanity is given 'dominion'. In reference to Cox's interpretation of this passage Elder writes:

God does not simply insert man into a world filled with creatures which are already named, in relationships and meaning patterns already established by decree. Man must fashion them himself. He simply doesn't discover meaning; he originates it.

The implications of this [for Cox] are clear enough. Man stands over against nature in a subject-object relationship, and the object (nature) is liable to what man decides for it.⁵³

Using this line of argument Cox could pursue the idea that the time is right for a "new man" in a "new age".⁵⁴ It is interesting though that Cox does not see nature, or the very earth on which people dwell, as having much, if any, significance in the development of this "new man" other than that he should show complete and unconstrained dominion over creation. He writes:

Modern man grasps his identity through his personal style of life. But the identity he grasps is mediated to him by constant interaction with his society, his family, his work, his community.⁵⁵

Humanity's identity then is not even partially determined by

⁵³Elder, pp. 74-75.

⁵⁴Cox, On Not Leaving It To The Snake, p. 92.

⁵⁵Cox, p. 99.

its relationship with the other components of creation. While there may be holy places where God meets people, according to Cox these places are not sanctified. God is spirit and transcendent. Therefore it is not where one encounters God that is important and no sanctity is to be attached to any place. For Cox this is a good thing. It allows for humanization as he sees it to become more of a reality.

We cannot speak about God's presence in some kind of natural element - if we start by identifying God primarily with natural phenomena, whether it is sunsets or beautiful lakes, then we are on the wrong track.⁵⁶

With reference to the church, Cox believes that the church as it is now known has to die in order to allow for a new birth. The present church is no longer relevant for modern humanity in the secular age. The church is not the place where God is presently liberating people. This liberation is occurring in the world. Cox is concerned that as a result of all the emphasis on the servant role of the church, humanity may miss the gospel call. He sees this as a call to, "adult stewardship, to originality, inventiveness, and the governance of the world."⁵⁷

The ministry of the church in the secular city must include a contemporary extension of exorcism. Men must be called away from their fascination with other worlds--astrological, metaphysical, or

⁵⁶Cox, God's Revolution, 23.

⁵⁷Cox, On Not Leaving It To The Snake, p. xvii.

religious--and summoned to confront the concrete issues of this one 'wherein the true call of God can be found'.⁵⁸

The true call of God for Cox is one through which there is a total liberation from the idea that there is anything sacred about nature. It is a liberation that encourages humanity to manipulate and use nature in any way possible for the advancement of science which will in the end be of great benefit for humanity. When Cox writes about the world it is not in the sense of the physical world and all of creation, but in the sense of the political world and the world of social and work interactions between people. As explained above this is the only area in which God is revealed to humanity, and according to Cox, the only area through which God works with humanity.

If the Bible actually supports Cox's argument then Lynn White is correct when he says that many of our ecological problems stem from the Judeo-Christian teachings as found in the Bible. Beginning in the next chapter of this thesis we will discredit much of the support Cox uses and will show that his "man-centred" view of creation needs much more justification than he gives.

A third person to be considered and who has contributed much to our discussion is Stanley L. Jaki. In studying Jaki

⁵⁸Cox, The Secular City, p. 134.

the question to be addressed is one of what do we do in the face of technological advancements which seem to be harming the environment? While White's proposition that we make St. Francis patron saint for ecologists may at first glance appear to be a solution, upon closer examination it becomes evident that this is not really a viable one. As we approach the twenty-first century the ecological problems will not be solved if they are dependent on people 'getting back to nature' in a universal sense. While this may have its merits and in theory is ideal, it is hardly a realistic approach to solving our problems in a scientific and technological age. In fact, Jaki argues that White's suggestion is not even true to the Christian calling. It is his summation that science is good and it is God's will that it progress. This will be further developed in our discussion of Jaki's perception of humanity and its place in creation.

In an attempt to acknowledge the crisis and also defend the progression of science Jaki does a historical study on ancient civilizations, such as the Sumerians, Babylonians and Assyrians, as well as Graeco-Romans, and arrives at several conclusions regarding their view and resultant treatment of the universe. His research leads him to conclude that for the people of ancient times the universe was filled with mystery and was to be held in awe. While they may have been curious about how the various components of the universe functioned

their fear and awe of the universe kept them from delving too deeply into a scientific study.

One of his findings is that astrology played a major role in these ancient people's regard of the universe. He writes:

The observation of the heavens seemed ... to be the logical clue for learning something about the course of events on earth.⁵⁹

It was believed that every part of nature operated out of its own will. Prayers and sacrifices to the various components of nature were of utmost importance for the survival and well-being of all humankind.⁶⁰

He does not explain how he reaches the assumption, but he does assume that the belief in the divinity of the heavens somehow tied in with the belief in a cyclical order of the universe. In this cyclical order all things as they are known will eventually be destroyed and a new creation will begin. Cameron Wybrow, in his book, The Bible, Baconianism, and Mastery Over Nature, maintains that with the exception of the Graeco-Roman culture, Jaki could not have reached this conclusion through the research shown through his writing. He notes:

If we accept the authority of Jaki's own massive research effort, Science and Creation, we must come to a conclusion which Jaki himself does not seem to

⁵⁹Stanley L. Jaki, Science And Creation (New York: Science History Publications, 1974), p. 94.

⁶⁰Jaki, p. 94.

accept, namely that the connection between the divinity of the heavens and the cycle of worldly events is accidental, not necessary.⁶¹

Jaki puts great emphasis on this belief in astrology and on the belief that everything is cyclical. This relates to our purpose in that he sees these beliefs as hindering any real progress in the areas of science and technology. He argues that because these ancient people saw everything in creation as being cyclical it prevented them from progressing in science, and therefore prevented them from mastering nature. According to Jaki:

They remained trapped in the disabling sterility of a world view in which not reason ruled but hostile wilfulness, the crushing blows of which threatened with repeated regularity. Believing as they did that they were part of a huge, animistic, cosmic struggle between chaos and order, the final outcome appeared to them unpredictable and basically dubious. All they could see was the endless alteration between the two. Not that they did not wish to contribute to a steady emergence of order. Not that they did not wish to influence nature, or rather its personalized forces, the gods. The animistic, cyclic world view made it, however, impossible for them to realize that to influence or to control nature one had to be able to predict accurately its future course. They lacked faith in the possibility of such a prediction as it implied the notion of an order free from the whims of animistic forces that inspired the vision of a collapse to occur time and again. As a result, the mastery of science could not become a proud feature of the culture of a land on which ziggurats cast their sombre omen.⁶²

⁶¹Cameron Wybrow, The Bible, Baconianism, and Mastery Over Nature (New York: Peter Lang Publishing, Inc., 1991), p. 67.

⁶²Jaki, p. 99.

There had to be a freeing agent in order for such progress to occur. As long as people were locked in the mind-set presented in the above quotation very little, if any, progress could be made in the advancement of science and in a better understanding of the universe. The freeing agent, according to Jaki, would be the teachings of the Bible.

There are some problems with Jaki's argument and these need to be considered. Jaki saw the big problem as the feeling of hopelessness on the part of ancient people as a result of their belief in cyclical patterns. His argument is that the Bible freed them from that belief and allowed them to develop a concept of linear time. The Biblical teachings also freed them from the belief that the stars were divine and this, as was previously referred to, eliminated the cyclical view of time. Upon closer examination, however, Jaki's argument is not very convincing. The cyclical view of time may have eventually disappeared, and this may have been the result of the impact the Bible had on the cultures. It was replaced, however, with an 'end of time' belief that, if one were to follow Jaki's argument regarding the more ancient cultures, would have impeded the progress of science more than the cyclical belief which it was replacing. In reference to this Wybrow writes:

... according to many Christian calculations the length of time allotted for human progress before the Second Coming has been considerably less than

the tens of thousands of years posited by classical authors or the trillions of years posited by Hindu Puranas. The psychic climate produced by Christianity would thus seem to have been at least as inhibiting as that produced by paganism.⁶³

As time went on, and the Bible as we know it took shape, there developed a belief in an afterlife. This afterlife existence, however, was not dependent on the present universe. In fact this universe had to be destroyed as part of God's final judgment and only then could the new heaven and the new earth be established. To follow Jaki's argument and to look at this logically one cannot help but question how such a belief would have encouraged the advancement of science any more than the ancient cyclical belief would have. If, as the Bible teaches, life is short and in the end the universe is to be destroyed, there could be little purpose in investigating nature or any other realm of the universe. While there developed a greater belief in the freedom of choice of humans this freedom was still seen as existing in a world controlled by a God who in the end would destroy all of creation. Surely this belief would not have encouraged progress as much as some of the ancient beliefs. To quote Wybrow again:

... the mastery writers provide no convincing argument for the claim that the pagan doctrine of cyclic universal dissolutions was a factor seriously inhibiting the rise of mastering

⁶³Wybrow, p. 70.

attitudes.⁶⁴

It is Jaki's conclusion, however, that these ancient civilizations viewed all of nature as a living being which is always in a process of birth, growth, death and rebirth.⁶⁵ There is a sense of deification of the universe. Such was not the case for the Hebrews. In Hebrew belief there is no room for the deification of nature. According to Jaki:

The most ancient parts of the Bible already show that for the Hebrews external nature was an irrefragable evidence of a supreme, absolute, wholly transcendental Person, Lord of all.⁶⁶

In line with this argument Jaki maintains that there is Biblical support to show that the purpose of the universe is as a dwelling place for humanity. In fact he presents the view that the earlier of the two creation stories, the second story, has as its focus on humanity, not nature. Jaki, like Cox and Foster, is of the view that this early Biblical story of creation does not intend to show any intrinsic worth in nature. He writes:

... this is made absolutely clear at the outset. 'At the time when Yahweh God made earth and heaven there was as yet no wild bush on the earth, nor was there any man to till the soil.' The author of the account is clearly skipping over nature to plunge into the primary topic of his narrative; the making of man by God, an act which includes the

⁶⁴Wybrow, p. 71.

⁶⁵Jaki, p. 139.

⁶⁶Jaki, p. 139.

preparation of the whole of nature for him. This is what is emphasized in the detailed description of the garden of Eden, in the rule about the use of fruits from the various trees, in the naming of all animals by man, and in the formation by God of a helpmate for man.⁶⁷

Jaki argues that Genesis 1, which scholars agree was written later than the second creation story, also supports the idea that the universe was put here primarily as a dwelling place for humanity. Humanity is in this unique and privileged position because of all the creatures, only people are made in the image of God. The Hebrew creation stories differ from their other counterparts in this regard. This "image of God" belief made humankind unique and laid special responsibilities on it. It is in the present universe that humanity can reach its full potentiality as God intended.

While humanity had freedom of choice and had a unique position in the order of the universe, it had an obligation also to show a responsible attitude toward creation and to approach it as something given by God, not something to be worshipped or revered. It was not a universe that would be destroyed only to be reborn. It was a universe given as a dwelling place first and foremost for humanity. Jaki says that this thought was further developed in Christian teaching:

The most important consequence of the permanence and the universality of the world order anchored in

⁶⁷Jaki, p. 140.

the Christian notion of the creator was the ability of the human mind to investigate that order. Such was an inevitable consequence if both nature and the human mind were the products of one and the same Creator.⁶⁸

If Jaki's conclusion is correct then the road to science was open and human beings were placed in a position of obligation to investigate the various elements of nature.

In his book The Road of Science and the Ways To God, Jaki reaffirms that science failed to develop significantly in the great ancient cultures.⁶⁹ In fact it cannot be denied that science failed to develop within the Judeo-Christian cultures of the Western world until the seventeenth century. Jaki attributes Newton with really ushering in the scientific age. Science was to be the means whereby paradise would be created on earth.⁷⁰ As is evident, however, such was not to be the case and one does not need to look any further than the ecological crisis to realize that something has gone terribly wrong. While science and technology have been the means of improved living standards and longer life expectancy, they have also introduced humanity to the real possibility that life on this planet is fragile and in fact the planet itself

⁶⁸Jaki, p. 278.

⁶⁹Stanley L. Jaki, The Road Of Science And The Ways To God (Chicago: The University of Chicago Press, 1978), p. 34.

⁷⁰Stanley L. Jaki, The Absolute Beneath The Relative And Other Essays (Lanham: University Press of America, 1988), p. 58.

is fragile. Jaki puts it well:

As is well known, because of science, man's science, man can trigger a chain reaction of genetic mutation ruining the entire human race. Because of science, man's science, man can ruin his entire environment and blow himself into outer space on the wings of a mushrooming nuclear blast.⁷¹

This being the case the question of how science and technology have been allowed to advance to this degree must be addressed. Without negating the many advancements of science and technology one cannot dismiss the fact that these two areas of study have placed the universe in a very precarious position.

Jaki acknowledges this and takes the position that this situation is the result of a science and technology that was allowed to develop without really being held accountable in the ethical and moral sense for its actions. He does not question the integrity of the advancement of science, but does question how these advancements ought to be used. Herein lies the problem:

Tools can be used properly and improperly, that is, in an ethical or in an unethical manner. The choice or dilemma presses itself upon us with ever greater urgency as the tools produced by science take on an ever greater efficiency. Herein lies the root of the desire to have an ethical science, that is, a science the tools of which are used in an ethically proper manner.⁷²

No one can deny that since the seventeenth century science has

⁷¹Jaki, p. 58.

⁷²Jaki, p. 123.

developed at an unprecedented rate. The human being has been placed in a position over nature as could never have been realized before the time of Bacon and Newton. Although Jaki is of the opinion that Bacon and his followers introduced little that was new in science, he does believe that Newton had quite an impact. Whether Bacon or Newton ought to be seen as instrumental in the development of a science without an ethical dimension one important fact remains that Jaki supports: in the last two hundred years humanity's relationship with nature has changed drastically. Significantly increased human population, warfare that can threaten the whole of the universe, chemicals that are a danger to survival and the depletion of natural resources as would have been unimaginable as late as in the last century, all have been determining factors in placing humanity over against nature rather than on its side. Somewhere along the way humanity has lost its sense of dependency on the very natural elements which it is destroying and threatening. Science and technology of the twentieth century must have a strong ethical component to it. The question is no longer whether or not humanity can have mastery over nature. It is evident that humanity already has this mastery. The question is, how should this mastery be used? Jaki addresses this question when he writes:

The tremendous power wielded by science brings out

more forcefully than anything else the eternal source of ethical concern. The source is the tragic difference between man's tools and man's aims. ... an ethical science is on hand only when its norms are taken from an ethics already existing independently of science. Yet although ethics and science come from two different wellsprings of the human genius, both must remain consistent with their basic presuppositions if they are to be intellectually respectable. ... When, and only when, there is a broadly shared conviction about a truly 'scientific' ethics, mankind may muster enough moral strength to use science properly and enjoy thereby the blessings of a truly ethical science.⁷³

With the philosophy that developed in the second half of the seventeenth century in England in particular, there was the hypothesis that everything in nature was comparable to a machine. As this thought pattern developed human life and all that it contained was viewed as being of a mechanistic nature. The question of life having a purpose was not to be taken seriously. With the belief in life having a purpose eliminated so too was hope eliminated. There was a real shift in humanity's approach to nature. In the early part of the seventeenth century and even into the eighteenth century both protagonists and critics of science were of a Christian background. By the latter part of the eighteenth century those who favoured the advancement of science most strongly were also those who were most vocal in expressing the view

⁷³Jaki, pp. 137-138.

that Christian beliefs ought to be abandoned.⁷⁴

With the abandonment of religious belief there appears to have been an abandonment of an ethical approach to the universe. From Jaki's perspective the Bible portrays an ordered universe. The reason for this being that only a universe of permanency and universality would allow an investigation by the human mind. The human mind and the universe each had the same Creator and the universe is here to be investigated by the human mind.⁷⁵ As stated above, however, something has gone terribly wrong in the ecological domain and science does not seem to be able to provide all the answers. In this regard Jaki is in agreement with Cox and Foster. This science which was seen for more than two centuries as having the potential, if not the capabilities already, of leading humanity to a stage of near perfection, has in fact lead humanity to a stage of near destruction. In agreement with Foster, Jaki believes that humanity has lost its sense of aim or direction. As a result more and more people are returning to astrology and other superstitions. When people are faced with serious problems, such as a serious ecological crisis, they look for some almost magical and immediate solution. Not only is this archaic, but it also

⁷⁴Jaki, p. 217.

⁷⁵Jaki, Science and Religion, p. 278.

shows a lack of responsible behaviour on the part of people.

Jaki argues:

Man once again frantically wants to abdicate his responsibilities by trying to get immersed in the great cosmic ebb and flow.⁷⁶

While Jaki sees humans as being in a position of control, he also sees science as running out of control. This is the result of humanity's loss of aim and direction. Science has been reduced to sheer technology.⁷⁷ Science does not and cannot provide norms and goals for humanity. It is only now that people are realizing this and unfortunately it is at a time when atheism is prevalent and belief in a creator is seen as something left over from a previous age.⁷⁸ Technology in and of itself is not bad and it results from scientific endeavours. Jaki refers to this as science providing the "tools of constructive endeavour."⁷⁹ What is required of people is a responsible attitude towards the tools which science and technology provide.

Jaki, like White, Cox and Foster, raises the question as to why it took such a long period for science to emerge and progress. He too agrees that it was the pantheistic concept

⁷⁶Jaki, p. 354.

⁷⁷Jaki, The Road of Science and the Ways To God, p. 312.

⁷⁸Jaki, p. 355.

⁷⁹Jaki, p. 355.

of the universe which prevented, or at least slowed down, the advancement of science. As nature worship gradually receded in Western culture scientific advancement was allowed to occur. Such advancements, however, did not in all cases remove feelings of guilt as humanity investigated and manipulated nature. Jaki maintains that if the Biblical or Christian sources can be blamed for so many of the ecological problems as a result of its teaching that humanity should have dominion over nature, then it must also be given credit for the creation of science and technology. To further remove the blame for the ecological crisis from Christianity, Jaki maintains that if science and scientists have rejected Christian theism and its teaching of morality, then blaming the ecological crisis on Christianity is senseless. He does not, however, leave the argument there. He believes that science needs to be controlled and that Christianity, because of its ethical perspective, would provide the necessary control. For Jaki, science can be seen as leading to the ways of God. That being the case there is a connection between science and ethics.⁸⁰ Science, however, cannot be expected to develop a system of ethics. That is the role of the people of science. For Jaki the fact that the ethical aspect of science needs a revival does not negate the fact that science

⁸⁰Jaki, The Road of Science and the Ways to God, p. 307.

is intrinsic to Christianity and our Christian calling. His conclusion is that science is good and it is God's will that humanity progress in this area. This progression includes a mastery over nature. It is a sense of direction and ethical aims that are needed by human beings. When these are in place people will be in a position to reach their full potential as God intends.

The mastery writers who have been discussed display more than one commonality in their view of humanity's place in creation and the role of science and technology. However, the most prominent argument from each of them is that humanity's role is to have dominion over creation and to abdicate that unique position would be an affront to the will and commands of God. For each of these mastery writers humanity is at the centre of God's creation and all of creation is there to be explored, investigated, and manipulated for the benefit of the human species. Each, as has been demonstrated, recognizes the ecological crisis and connects it to humanity's rapid advancement in science and technology. However, the approach to a solution is different on the part of each person considered and while there is some agreement with Lynn White, none is in total agreement. Neither a return to a past way of life, nor the acceptance of St. Francis of Assisi as a patron saint for the environment is a viable solution to the ecological problem. Each maintains that science and

technology must progress and each uses limited Biblical support to justify his argument.

The next chapter of this thesis will examine the ancient and medieval Jewish and Christian beliefs regarding humanity and creation. This will be done through an examination of various relevant scriptural passages and their interpretation during the early and medieval periods. This examination will attempt to demonstrate that humanity did not always see itself as being at the centre of the universe; nor did it always view the remainder of creation as being mechanical with no other purpose but to serve the human race.

CHAPTER 2

The Biblical Data in the Light of White's Hypothesis

Examining the Text

Without exception proponents of the "mastery hypothesis" use Biblical references to support their position. In particular they make reference to Genesis 1:28, which reads as follows:

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."⁸¹

For an examination of the text the starting point will be with this verse and the focus of much of this chapter will be on the same. The verse will, however, be considered in light of other Biblical passages as they relate to our topic. In our deliberations of these passages we will take the "thematic" rather than the "subjective" approach. Choosing selected passages out of context, and choosing only parts of a Biblical verse, without considering theme or context is very dangerous and unscholarly. D.J.A. Clines, writing in The Catholic

⁸¹For the purpose of this work the Holy Bible. New Revised Standard Version will be used for direct quotations and references. The exception will be when a Scripture passage is quoted within a quote. In that case the Biblical quotation will be taken from whichever version of the Bible has been used by the author being quoted.

Biblical Quarterly, says:

To discern the "theme" of a work is a more perceptive undertaking than to discover its "subject." Both theme and subject may be answers to the question, "What is the work about?"... to discover its theme is to see the attitude, the opinion, the insight about the subject that is revealed through a particular handling of it, that is to understand the work more deeply than knowing its "subject."⁸²

For our purposes it is imperative that we move beyond the "subject", and through the study of various Biblical passages attempt to find the implicit theme. It will become evident as we progress that the interpretation of the implicit theme regarding humanity and its relationship to the rest of creation has changed and evolved through the ages.

The implicit theme can only be discerned when attention is given to the literary context of the passages being considered. Here, in particular, is one area where White fails. His argument is based on a few select Scripture passages taken out of context. As Cameron Wybrow says:

[Lynn White and] the mastery writers exhibit a somewhat unsystematic approach to interpreting the Old Testament. This is true of their Biblical commentary in general, and most obvious in their argument about 'dominion'. In claiming that the Bible preaches 'dominion', they rest a great amount of weight upon a few striking passages--Genesis 1:26-28, Genesis 2:19-20, and Psalm 8:5-8--but pay little attention to the literary context of these passages. The literary context generally ignored includes not only the immediate context (i.e., the

⁸²D.J.A. Clines, "Theme In Genesis 1-11", The Catholic Biblical Quarterly, 38 (October 1976), 485.

neighbouring verses), but also the broader context--those large units of the Bible (e.g., Genesis 1-11, and that entire body of Psalms which portray nature) in which the smaller units are located and have their meaning. Such a procedure must strike anyone trained in the reading of the Bible--or of any literature--as insufficient.⁸³

In our attempt to discover a better understanding of humanity and its place in creation and in our attempt to explore Judeo-Christian implications for this, selected Scripture passages will be considered from a contextual as well as a thematic approach.

To begin deliberations of Genesis 1:28, brief reference will be made to the verse with a more extensive study being carried out later in the chapter. White and others insist on putting great emphasis on this verse to support their argument that the Bible explicitly states, or at least has been interpreted to state, that humanity has been given unlimited dominion. A more intensive study of this verse will reveal some major flaws in White's hypothesis. In fact the flaws are so major that Jeremy Cohen, in reference to White and his reliance on Genesis 1:28 for his argument, says the following:

... with regard to Genesis 1:28 itself, the ecologically oriented thesis of Lynn White and others can now be laid to rest. Rarely, if ever, did pre-modern Jews and Christians construe this verse as a license for the selfish exploitation of the environment. Although most readers of Genesis casually assumed that God had fashioned the physical world for the benefit of human beings,

⁸³Wybrow, Bible, Baconianism, pp. 105-6.

Genesis 1:28 evoked relatively little concern with the issue of dominion over nature.⁸⁴

While many persons, Lynn White included, have attempted to demonstrate how the ecological crisis being faced today is the result of the interpretation of the mandate given in Genesis 1:28, it will be shown that little attention has been paid to the second part of the verse. Whatever the interpretation placed on the verse by the modern person, it cannot be assumed that this was the interpretation placed on it by the Ancient and Medieval exegetes. Its earliest interpretations were not really concerned with making any kind of ecological statement. More will be said on this later.

In order to facilitate the study of selected Scripture passages as they are used by White and others, we need to consider this verse in the context of the verses just before it and just after it. These are Genesis 1:26-27, 29. Another passage that will require some detailed study is Psalm 8:5-8.

In Genesis 1:26-29 humanity is placed in a unique position in the order of creation and is told what is required by God regarding its place in the created order.⁸⁵

Then God said, "Let us make humankind in our image, according to 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

⁸⁴Cohen, p. 5.

⁸⁵For the purpose of placing the verse in its context Genesis 1:28 will be repeated in this quotation.

the wild animals of the earth, and over every creeping thing that creeps upon the earth." So God created humankind in his own image, in the image of God he created them; male and female he created them. 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." God said, "See, I have given you every plant yielding seed which is upon the face of all the earth, and every tree with seed in its fruit; you shall have them for food."

There is no doubt that according to this Scripture passage humanity is placed in a privileged position. The question we are concerned with is how much licence is humanity given regarding its dominion over the rest of creation and what was the Biblical intent regarding the usage of that dominion? The mastery hypothesis would appear to take it to the extreme. Wybrow comments:

Here, says the [mastery] hypothesis, is a very impressive picture of a godlike being, the only godlike being in all Creation, a being meant to assume "dominion" over all other living creatures and to occupy and "subdue" the entire earth, taking at will the things that grow upon it for sustenance. The two central notions--"image of God" and "dominion"--seem appropriately joined here; as God has dominion over the whole of Creation, so man, God's "image", has dominion over the earth within it. And as God is omnipotent and his rule over the whole of Creation unqualified, so human beings must also be essentially superior and their mastery over their part of the created whole utterly complete.⁶⁶

In our discussion three concepts of these verses need to be examined closely. These are (i) the concept of humanity

⁶⁶Wybrow, Bible, Baconianism, pp. 135-6.

being made in the "image of God", (ii) the concept of humanity having "dominion over all other living creatures" and, (iii) the concept of humanity "subduing the earth." While one may argue that these are stated clearly in the verses quoted, consideration must be given to attempting to find what these words would have meant in the original Hebrew. Also, in our attempt to discover the theme, consideration must be given to trying to discover their meaning in their original context.⁸⁷

To begin, what does it mean that humanity was made in the image of God? The exact meaning of this has been debated throughout the ages. For our purposes although it is not imperative that we get into an indepth discussion over whether or not this has to do with the physical attributes of humanity some attention will be given to this. It is not the physical design that is important here, but the way humanity is told to interact with the rest of creation. Again, it is really the theme of the "image of God" that is our concern.

Cohen deals with this concept by considering various opinions on the subject. Some authorities conclude that the very essence of God's image in humanity is portrayed in the act of ruling over nature. It is in this action that imago Dei is best demonstrated. Other authorities argue that

⁸⁷Chapter 3 will consider these concepts from the point of view of their relevance for the present day and whether or not the Ancient and Medieval interpretations are appropriate for today's situation.

humanity is given dominion as a result of its being created in the divine image. This being the case, the empowering of humans fulfils the divine plan found in Genesis 1:26. The task of the human is to have dominion. There is a third group of scholars who argue that humanity's dominion over the rest of creation is in no way related to humanity being created in the image of God.⁸⁸ These divergent viewpoints demonstrate that there are many scholarly camps with different opinions on exactly what "image of God" means.

"The image of God" concept is important in as much as it relates to what has been interpreted as being the task, or responsibility, of humanity in the created order. According to Genesis 1:26-28 humanity, being made in the image of God, is given the task of exerting dominion over all living things. Giving this only a surface treatment would lead one to conclude that this is straightforward and really requires little by way of interpretation. As will be shown, however, the interpretation for this verse is not nearly as simplistic as it appears to be at first. However, as it now reads literally, the directive is given and according to our verse "dominion" over all things on earth is given to humanity.

If this directive is to be accepted literally, the next important question for our purpose is just what does this

⁸⁸Cohen, pp. 22-3.

dominion entail. Again most Biblical scholars look for the meaning of the word "dominion" in its context. And contrary to what some of the "mastery hypothesis" supporters would have us believe, the dominion given to humanity was not originally without its restrictions. Even if one were to rely solely on chosen Scripture passages to support one's argument, there are several passages which could be chosen to show that humanity's dominion over nature came with certain limitations and many of these will be used and referred to throughout this work. Wybrow puts it well:

It is now possible to make a general statement about human "dominion" as it is conceived in the Bible. The kind of dominion which man is intended to exercise (as opposed to the kind which man may attempt to exercise) is: first, firm but not cruel; second, only over the earth and its inhabitants; third, restrained even upon the earth by a respect for other created beings and their 'ways'. Therefore the notion of unlimited mastery put forward by the mastery writers is untenable.⁶⁹

This can best be illustrated through reference to the creation story and the account given regarding humanity and creation before the Flood. At this time humanity is given dominion over all creatures but this is not an unlimited dominion. Humanity is not given the right to kill and eat other creatures. According to this Biblical story, God had created all things and God had seen that they were good. We can move to the logical conclusion that life itself was also good, not

⁶⁹Wybrow, Bible, Baconianism, p. 159.

just human life, but all life. It does not appear to be a part of the logic, or part of the theme of the account, that God would intend that one species should destroy another. It therefore appears that the earliest intention of God, if we use the Bible as the basis for our argument, was for humanity to be vegetarian. This plan changed only after the Flood and the "fall of humanity." To follow this line of thought, if people had lived as God had intended there would be no killing of animals and humanity and animal life would be at peace with each other. Saadya b. Joseph Gaon, writing in the tenth century, maintains that this vegetarian proscription was only in effect temporarily in order to ensure the survival of the various species.⁹⁰ Even if this were the case, it is interesting to note that the change came after the Flood which has always been associated with the sinfulness of humanity. If the story is to be understood on such a literal interpretation, then surely after the Flood there would have been an even greater need for people to have been vegetarian since so few animals of each species survived the great catastrophe. Gaon's premise appears to be rather weak and there appears to have been some other reason, or change in attitude, which caused humanity to become carnivorous.

⁹⁰Saadya b. Joseph Gaon, Commentary On Genesis, ed., Moshe Zucker (New York, Columbia University Press, 1984), pp. 54-55, 259-260.

While the animal kingdom is only one part of creation, it is a part over which people often claim they have the God-given right to have dominion. Human beings tend to separate themselves from the other animals, tending instead to think of themselves as an entirely different species with the right and the power to exert dominion over all other creatures. This dominion, however, is the result of something having gone wrong in the original plan. In particular, it results from the sin of humanity.

Such an interpretation shows one of the weaknesses in White's argument. The Bible supports the premise that the original intent of God was that humanity would live without sin. Before "sin", humanity was vegetarian and this changed only when God's original plan had not been followed. Rather than giving any focus to the pre-Flood teaching that humanity was to be vegetarian, White and others attempt to prove their argument through a blending of Biblical passages:

Those (such as White) who notice the difficulty at all overcome it by amending Genesis 1 with Genesis 9:2-3, in which Noah and his sons (and hence all his descendants up to the present time), are given the right to kill and eat animals. Also, probably, they supplement man's diet on the basis of Genesis 2:19-20, in which Adam's naming of the animals, according to them symbolizes the complete subjugation of animal to human life. Only by an appeal to such passages could the mastery writers possibly make the transition from the vegetarian picture of Genesis 1 to modern factory farming.³¹

³¹Wybrow, Bible, Baconianism, p. 137.

This approach to interpreting Scripture is not valid because in so doing the literary character of the Biblical story is totally ignored and a distorted view is developed. The complete narrative (Genesis 1-9) must be considered. This brings us back to the thematic approach rather than focusing on segments of Scripture out of context.

In connection with the "dominion" concept, Genesis 1 portrays humanity as having been God's prized creation. Everything that humanity needs is provided for in this creation which God sees as being good. With the Fall of humanity, however, this has changed and after the Flood humanity struggles for survival in a world that is hostile and withholding. A close reading of the Biblical narrative reveals that the status of dominion given to humans in Genesis 1 is quite different from that given in Genesis 9. After the Flood the dominion given humanity is accompanied by the resulting fear and dread on the part of animals in their relationship to humanity. It is now that the flesh of the animals has become food for the humans. It is apparent that the eating of meat by humans was not a part of the original plan of God. After the Fall the ideal has been destroyed and with that destruction humans were explicitly commanded to eat meat. The change in tone regarding dominion is important here. It is one thing to have dominion over something or someone, but it is something quite different to have a

dominion that allows for destruction or death, and creates fear and dread in that over which dominion is being exercised. Taken in context, it becomes apparent in the creation stories that it was a less encompassing dominion that God had originally given humans. It was not unlimited freedom to use and abuse any part of the natural world for the sole benefit of humanity. God had created, and God had seen that all things were good. Humanity, though given a special place in creation and being the only creature made in God's image, was nevertheless a part of creation, not a god ruling over it.

In an attempt to understand "dominion" as it is used in the Bible, some attention needs to be given to the meaning of this term as it was used in Hebrew. Such a study of the word "dominion" (radah) will enable us to get somewhat closer to the original intent of the word as used by the Biblical writers.

In his study of the verb, James Barr concluded that "have dominion" (radah or rdh) means to "govern" or "rule."⁹² He argues that when persons use "dominion" in the Biblical sense to suggest the right to exploit or destroy, they are really giving it a stronger meaning than was originally intended. He says:

⁹²James Barr, "Man and Nature--The Ecological Controversy and the Old Testament", Bulletin of the John Rylands Library, 55 (1973), p. 22.

the emphasis in Genesis does not appear to lie on man's power or on his exploitative activities. There has indeed been in the modern exegetical tradition, especially when the image of God has been identified with man's dominion over the world, a tendency to dwell with some satisfaction on the strength of the terms employed... the human "dominion" envisaged by Genesis 1 included no idea of using the animals for meat and no terrifying consequences for the animal world."³

There can be no denying that the Genesis writers believed that humans were here to dominate, but that does not mean that there is no room for interpretation of what was meant when they used the word (radah). If the theme of the creation stories is taken into consideration, and if this theme is followed through, then domination in its original intent cannot be interpreted as meaning a harsh domination. It was more a position of overseeing as a good king would oversee his kingdom while ruling with justice and righteousness or as the good steward would look after that for which he has been entrusted. It must be kept in mind, however, that this "dominion" was given before the Fall.

David Hallman, when discussing "dominion" and its modern day interpretation, writes:

The context for the Genesis reference to 'dominion' is usually forgotten. The reference to humanity being given dominion comes right after God deciding to create us in God's own image. God assigned the authority of dominion while man and woman were still assumed to function as God would. And God, we must remember, created the world, and all that

³Barr, p. 20-1.

was in it, and called it 'good'.⁹⁴

He goes on to say that because sin became a part of humanity with its greed and corruption, people are no longer able to exercise "dominion" in an appropriate way. Hallman maintains that the "dominion" concept is one which we may have to leave behind us because of its destructive potential. It is not in keeping with what God had intended and in fact is quite a dangerous concept. The problem is that it becomes an issue of power and control, not an example of caring and equality. After the Fall when humans no longer complied with the divine will their dominion status changed.⁹⁵

This brings us to the third important aspect of this Scripture passage. Not only are humans given dominion over all living creatures but they are also told to subdue the earth. Again the meaning of "subdue" as it may have been originally understood needs to be considered. (Kabash), according to Barr, may be regarded as being stronger than "have dominion." However, subdue as recorded in the Bible is only used as it refers to humans' treatment of the earth, not in reference to animals or other creatures. Barr argues that "subdue" as used in this passage means nothing more than

⁹⁴David G. Hallman, Caring For Creation (Winfield: Wood Lake Books Inc., 1990), p. 25.

⁹⁵Hallman, p. 26.

farming the land.⁹⁶ Wybrow feels that Barr's explanation for the word (kabash) requires further explanation. While it is used in reference to the invasion of the land of Canaan by Israel, it obviously does not mean the actual invasion of the land in a destructive sense. It most likely refers to the occupancy of the land and the resultant farming.⁹⁷ This is something quite different from its destruction.

There are Scripture passages which are quite explicit regarding how the land and its vegetation is to be treated, not only in times of peace but also in urgent times of war. In his article "Ecology and the Jewish Tradition", Eric G. Freudenstein makes reference to Deuteronomy 20:19-20 to support his argument that conservation of the environment is a component of Biblical teaching:

If you besiege a town for a long time, making war against it in order to take it, you must not destroy its trees by wielding an axe against them. Although you may take food from them, you must not cut them down. Are trees in the field human beings that they should come under siege from you? You may destroy only the trees that you know do not produce food; you may cut them down for use in building siegeworks against the town that makes war with you, until it falls.

⁹⁶Barr, p. 22.

⁹⁷ On this subject Wybrow says the following: "Therefore, if one insists on a parallel between the use of the verb "subdue" in Genesis and in Joshua, one has to argue that 'subduing the earth' in Genesis means, not plundering or ravaging the earth, but occupying it for human use, by means of reproductive expansion..." (Wybrow, Bible, Baconianism, p. 148.)

relationship between man and God, Philo viewed the mandate to have dominion as being of more importance than the mandate to procreate. It was not, however, a destructive dominion but a protective stewardship type of dominion.

In the rabbinic midrash 'aggadah' the emphasis is again on the first part of the verse and not on the dominion granted human beings. However, enough is said to allow for some conclusion on how the "dominion" part of the verse was interpreted in these writings. Cohen puts it well:

While modern Jewish writers have strenuously denied that their classical rabbinic predecessors construed this dominion as a license to exploit the natural environment selfishly and irresponsibly, the midrashic elaborations on the precise meaning of the divine bequest in Genesis 1:28b are few. Most ancient and medieval religious thinkers concurred that God had fashioned the world expressly for human use and sustenance, and the second half of our verse evidently required much less homiletic interpretation than the first.¹⁰⁸

The rabbinic midrash attempted to connect Genesis 1:28a and Genesis 1:28b. By this it is meant they attempted to show a relationship between the command to procreate and the command to have dominion. Genesis Rabbah is a good example. To quote Cohen again:

Carefully read...the text of Genesis Rabbah suggests that the sexuality mandated and sanctified by Genesis 1:28 not only belongs to the untamed world of nature but also pertains to the distinctively human, and therefore "meta-natural", purpose in the divine plan. God created the world

¹⁰⁸Cohen, p. 99.

Ben Sira and Philo were more interested in the dominion of humanity over nature than in the fertility of humanity. Philo the Jew also emphasized the same component of the verse:

So the Creator made man after all things, as a sort of driver and pilot, to drive and steer the things on earth, and charged him with the care of animals and plants, like a governor subordinate to the chief and great king.¹⁰⁶

Philo sees this dominion over all creatures as making Genesis 1:28 as much a mandate as a blessing but did not interpret Genesis 1:28b as a granting of permission to exploit or abuse the natural world. He is charged with the care of animals and plants. As Cohen asserts:

The blatant anthropocentrism of Philo's world view notwithstanding, the Jew of Alexandria did not read our verse as a license to exploit the physical world, nor did he perceive its bequest as gratuitous, demanding nothing in return.¹⁰⁷

The relationship between God and humanity was a covenantal one. While humanity may have been viewed as having a special place in the creation of God, all things that had been created were of God and were therefore special. This belief carried certain implications with it. Humanity's dominion came with responsibility, and the dominion given to Adam was no different from that later given to Noah. In the covenantal

¹⁰⁶Philo, *De opificio mundi*, trans. F. H. Colson and G. H. Whitaker (Cambridge: Harvard University Press, 1929), 1:66-73.

¹⁰⁷Cohen, p. 72.

The Lord created humans out of earth, and makes them return to it again. He gave them a fixed number of days, but granted them authority over everything on the earth. He endowed them with strength like his own, and made them in his own image. He put fear of them in all living beings and gave them dominion over beasts and birds...He established with them an eternal covenant, and revealed to them his decrees (Ecclesiasticus 17:1-4, 12).

In this passage Ben Sira portrays a creation where humanity is in control of all living beings and all other things on earth. All other beings live in fear of humanity and this fear has been put in them by God. Nothing will change this covenant because it is eternal. This appears to be an attempt to downplay the effects of the Fall on humanity's superiority over the rest of creation. The conclusion being that the sin of the first parents did not diminish man's superiority over the animals. Ben Sira views the blessing given to humans in Genesis 1:28 as being indicative of the fact that in the order of creation humanity has a special status, one that makes humans superior to all other creatures.

Writing later in the same century as Ben Sira, the author of Jubilees, Philo the Jew, also summarized the creation stories. He too made reference to God having given man¹⁰⁵ dominion over everything of the earth, seas and skies. Both

¹⁰⁵The author of Jubilees also refers to man only, to the exclusion of women, as having been given dominion over the creatures of the earth and sea. Ben Sira did not say that man was given dominion over the fish.

does not negate the importance of the second part of the verse where humanity is told to have dominion over other living creatures. Cohen maintains that the introduction to the verse contains the blessing and that the Hebrew word for mastering the earth, "w'-khivshuha", belongs to the first half of God's blessing. Therefore, "the syntax of Genesis 1:28 militates against a neat division between the instructions to procreate and those to rule."¹⁰² Moreover:

The key to the "original" meaning of Genesis 1:28 lies not in its alleged license of environmental irresponsibility, nor for that matter in any more praiseworthy ecological lesson. Rather, the career of Genesis 1:28 begins in the midrashic process itself, whereby the Bible appropriates God's blessing of all humankind with fertility and dominion in order to define an exclusive relationship between God and his chosen people. Such was the meaning of our biblical verse when it was first confronted by post biblical writers, and such were the questions it continued to provoke: how to resolve this seeming contradiction in human nature, between animal-like sexuality and God-like rulership, and how to interpret this universal blessing in the wake of God's covenant with his people, Israel.¹⁰³

Ben Sira, writing in the second century B.C.E., refers to man's limited time on earth and also to the authority given to "man"¹⁰⁴ by God. The fear of man by other creatures is also considered by Ben Sira. He wrote the following:

¹⁰²Cohen, p. 13.

¹⁰³Cohen, p. 66.

¹⁰⁴Ben Sira makes no mention of women in this passage.

as such. How they relate to the theme of creation and the natural order, as portrayed in the Bible, is important. Those who choose only to focus on the severity of (Kabash) and (Radah) do a great injustice to the Bible as well as to what its implications may be for the modern person.

As has been shown "image of God", "dominion", and "subdue" are important terms in our understanding of humanity's place or role in creation. We will discuss the tradition of interpretation in order to reach an even fuller understanding of Genesis 1:28.

The Tradition of Interpretation: Ancient and Medieval Judaism

Having examined subdue and dominion in Genesis 1:28, we will now focus on Genesis 1:28 as a whole and its interpretation in ancient and medieval Judaism. This will have an impact on conclusions reached in our understanding of the verse in the context of the total creation story. It reads as follows:

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.

For the ancient Jewish rabbis, the main area of interest was with the first part of the verse which deals with the command to "be fruitful and multiply...". This, however,

nature. This agrees with what we have already said regarding the word "dominion."

The words "dominion" and "subdue" can be seen as having a positive or negative influence regarding humanity and its relationship to the rest of creation. It is in the interpretation that the difficulty lies:

These words [dominion and subdue] are sometimes said to indicate that man's dominion is unlimited or unqualified, or that it is harsh and involves imposing human will ruthlessly upon a reluctant nature. From the point of view of Foster and Cox, such strong language is a blessing because it frees man to do whatever must be done to make the world suit him. From the point of view of White... such strong language is irresponsible because it must lead to unbridled human assertion and the ravaging of Creation by human greed and carelessness.¹⁰¹

As has been shown, however, neither the points of view of Foster, Cox or White can be fully accepted if one considers the relevant scriptural verses in context. There are explicit instructions regarding the treatment of many components of nature, some of which have already been examined. It will be shown that herein lies one of the weaknesses in White's argument and that of others. They have failed to consider the context in which the verses appears and it is this which must be given consideration. It is not enough to consider isolated passages. While the words (Kabash) and (Radah) are very strong, they are not in isolation and must not be interpreted

¹⁰¹Wybrow, Bible, Baconianism, p. 147.

(Code, Laws of Kings 6:8) Other authorities interpret the Sifri in a larger sense, saying that one may not divert that flow of water from the city in order not to cut off the supply of drinking water from man and beast.⁹⁹

Depending on the preference of focus, this quotation can be viewed as an environmental statement. If we follow Maimonides' line of thinking it becomes evident that the trees of the city were seen as being of great value. If, however, we follow the scholars for whom the water supply was important only in as much as it provided a drinking supply for people, then we are faced once again with a very anthropocentric point of view.

To return to the meaning of Kabash, Bernhard W. Anderson notes:

The verbs translated "rule" or "subdue" do suggest forceful action, but here they do not necessarily imply tyrannical domination... Divine approval of violence is out of place in the context of Genesis 1, which portrays a "peaceable kingdom" in which humans and animals coexist harmoniously. Not until the Flood, according to the Biblical narrative, was this primeval peace modified by limited divine permission to slaughter animals for food, though with proper reverence for life--animal and especially human (Genesis 9:1-7).¹⁰⁰

Anderson, in his explanation for the word "subdue", also takes a thematic approach and demonstrates how even such a strong word as this cannot have meant a ruthless domination of

⁹⁹Freudenstein. pp. 407-8.

¹⁰⁰Bernhard W. Anderson, "Subdue the Earth: What Does It Mean?" Bible Review, (October, 1992), p. 4.

While this verse has a militant tone, it certainly exhibits a strong attitude regarding the value placed on the trees, and it certainly makes a sound ecological statement. This is perhaps one of the strongest direct statements made in the Bible regarding a single element of nature. Regarding this Freudenstein writes:

Warfare has always been the most destructive of all human activities, from the time of Avimelekh who "beat down the city (of Shekhem), and sowed it with salt" (Judges 9:45), to our own days when 500,000 acres of South Vietnam have been made a wasteland by modern chemical means ... For this reason, the case of the beleaguered city is a valid example with which to demonstrate the Torah's standards of conduct for safeguarding the environment... the necessity for regard of the environment is shown to be a vital concern of the Torah because it is demanded even under the emergency conditions of war.⁹⁸

It becomes evident from the Biblical passage quoted that even during warfare exploitation of the trees was not an acceptable mode of behaviour. The land and its people may be occupied, or "subdued", but that did not allow for destruction of the natural environment, at least not of the trees.

Freudenstein, in reference to Moses Maimonides and to the Sifri, one of the oldest collections of Rabbinic traditions, writes:

Maimonides spells out the reason thus: "One may not prevent the water supply from reaching the trees of the beleaguered city lest they dry up and wither."

⁹⁸Eric G. Freudenstein, "Ecology and the Jewish Tradition," Judaism, 19 (1970), 406-407.

promises made to Israel.

The Halakkah, rabbinic law, stated how Jews who wished to be faithful to the Talmud must live their daily lives. Very little, if any attention, was given to Genesis 1:28b in the Halakkah. Instead, the first half of the verse, with its blessing and its command to be fertile and increase, received more attention.

By the Middle Ages some Jewish Bible commentators were placing more emphasis on the second half of the verse (Genesis 28b). Rabbinic scholars now began discussing in detail the meaning of dominion given by God to the first humans. They were interested in the limitations and purpose of this dominion. For example Saadya b. Joseph Gaon interpreted the divine image to mean that humanity was placed in a position to rule or to have dominion. He did not interpret it to have any physical meaning in the sense of form or appearance. He practically ignored the first part of the verse dealing with fertility. He saw humans as being placed in a distinctive and privileged position amongst all other creatures, the only creature who can control many of the natural elements and use them for its own benefit. Humanity's technological achievements were fulfilling the words spoken in Genesis 1:28.¹¹³

¹¹³Gaon, Commentary on Genesis, pp. 53, 257.

During the intertestamental period the emphasis for our verse changed. During this period the first part of our verse having to do with sexual reproduction, which of course related to human sexuality, was not given great emphasis. Instead the emphasis was on dominion and human superiority as a result of their having been created in the image of God. However, as attitudes changed, the emphasis shifted once again to Genesis 1:28a with its procreation blessing. Regarding Genesis 1:28 little 'aggadic material has survived. Several Amoraic sages gave Genesis 1:28a a prominent position. For them however, procreation is important while the dominion of humanity over the rest of creation receives little attention. During this period of writing, human sexuality was viewed as enabling people to work within the natural world to help transform it in accordance with the heavenly model:

Albeit a characteristic of animals, procreation joined with the image of God in yielding a human creature that bridged two worlds and was thereby uniquely capable of deserving divine reward, unlike the angel and unlike the beast...One who neglected his procreative duties undermined the godly dimension to his nature, qualitatively and quantitatively detracting from human civilization.¹¹²

It was now the contention and belief of rabbis that the world was created by God for human habitation and it was here that the messianic redemption would occur and God would fulfil the

¹¹²Cohen, p. 122.

humanity was obedient to God. This would be in agreement with David Hallman's position referred to in the previous section. The midrashic homilies and their parallels in other texts which refer to Genesis 1:28 have a basic message. When humanity [Adam] sinned the whole course of nature was changed. No longer was humanity in a position of dominance and no longer did nature respond to the needs of humans. In the hierarchy of creation, as a result of sin, humans were in no higher position than the animals. Until the Fall animals had a fear and dread for humanity, but humanity did not have dominion over them as had been the case before the Flood. As can be seen this is a different position than that of Ben Sira.

In the period between the rabbinic tradition and the medieval Judaism there were those who saw in the verse something of an allegory, part of which has significance for this work. They interpreted the dominion given to humans in Genesis 1:26 as allegorical of Israel's future rule over heaven and earth.¹¹¹ Here is revealed a longing on the part of the Jewish interpreters to see Israel and the Jewish community in the position for which God has intended them, a position of power and leadership free of Gentile and Christian rule.

¹¹¹C. Albeck, ed., Midras Beresit Rabbati (Jerusalem: Jerusalem Publishing House, 1940), p. 19.

so that it could be settled and civilized, processes whereby humans harness and overcome the forces of nature, and not for it to remain in its pristine, natural state.¹⁰⁹

It is the understanding here that the very purpose for the creation of the world was to provide a place where humanity could exert its dominion in the sense of harnessing and overcoming all that was around it. This attitude became more prominent much later, starting as early as the eighteenth century, with Baconianism, when nature was to be conquered for the benefit of humankind. The important point here is that as human nature evolved so too did its mastery over the other components of nature. This was largely the result of humans devising tools and weapons by which to exert control and demonstrate power. This aspect of human development was not overlooked by some of the rabbinic writers. In the Palestinian Targum of Pseudo-Jonathan, "and master it" is translated as "and rule over it with possessions".¹¹⁰

Some of the few references in the midrashic tradition to the second half of our verse attempt to demonstrate that there is a direct relationship between the sin of humanity, with its resulting punishment, and the instruction in the verse to multiply and have dominion. Dominion was granted as long as

¹⁰⁹Cohen, p. 84.

¹¹⁰David Riederer, Targum Jonathan b. Uziel on the Pentateuch (Jerusalem: Jerusalem Publishing House, 1974), p. 2.

acknowledged. For most of the periods discussed, the emphasis was given to Genesis 1:28a, but there are instances where Genesis 1:28b received attention. It must be stressed, however, that the concept of dominion does not appear to have been one that allowed for total destruction of nature or even a misuse of any component of nature. White's hypothesis does not have total support from Ancient and Medieval Jewish interpretations of Genesis 1:28.

The Tradition of Interpretation: Early Christian Perspectives

As shown above the emphasis for most Ancient and Medieval Jewish writers was on the first half of Genesis 1:28. This appears to have been true for the earliest Christian writers as well. Genesis 1:28a ("be fruitful and multiply") was studied and discussed more than Genesis 1:28b ("have dominion over"). In the New Testament itself there is no direct reference made to Genesis 1:28. However, because Christianity developed out of Judaism, and the period we are studying was a period of Jewish as well as Christian writing, we are compelled to look for themes of significance in the New Testament as they relate to creation. We should not be put off by the fact that there is no direct reference made to

This interpretation on the part of Gaon again displays a very anthropocentric viewpoint. His interpretation can also be seen as something of a forerunner to the thinking of the period of the Industrial Revolution and to the thinking of Bacon and later Cox.

Not all rabbis of the period agreed with Saadya. For example, Moses Maimonides did not agree with the view that the world was created only for the benefit of humans and he rejected such a translation for Genesis 1:28b.¹¹⁴ However, there can be no denying that most medieval Jewish scholars placed humanity at the pinnacle of all creation and made no direct reference to Genesis 1:28b.

From the perspective of Judaism during the Ancient and Medieval periods it becomes clear that there was really no unity of thought regarding Genesis 1:28 or the verses immediately before and after it. The concepts of the "image of God", "dominion" and "subdue" were open for interpretation. As is true for today, there were those who viewed the Biblical message as one of permission to conquer and dominate all of creation, while others saw it as one of granting limited domination. This limited domination was allowed only as long as responsible behaviour was shown and obedience to God was

¹¹⁴Moses b. Maimonides, The Guide of the Perplexed, trans. Shlomo Pines. (Chicago: University of Chicago Press, 1963), 3. 13, p. 454.

Genesis 1:28. As Cohen argues:

The absence of any clear allusion to Genesis 1:28 in the New Testament is noteworthy. The themes of creation, marriage, sexuality, and dominion all figure significantly in Christian Scripture, and several New Testament texts (1Cor. 15:27, Eph. 1:22, and especially Heb. 2:6-8) definitely refer to Psalm 8 as describing the dominion of Christ, the Second Adam. Perhaps the Psalm lent itself to christological reinterpretation more easily than our verse in Genesis, because from a Christian perspective human dominion mattered relatively little in the quest for salvation.¹¹⁵

It is evident from the New Testament writings that the early Christians were primarily concerned with salvation and this world was not seen as being of great consequence. It mattered only in as much as it was the place where one lived out one's life which would later be judged by God. This was the age of the "new covenant", and anything connected with the material world was not to be given priority. Therefore, dominion over the creatures of this world, or over other parts of nature, was not to be of great concern. As a result it is not surprising that the New Testament writers did not quote Genesis 1:28, especially Genesis 1:28b with its "dominion" emphasis. Gaining, or exerting, dominion over any element of the natural world was not considered to be of importance, and certainly not an area in which people should expend their energies.

Christianity, however, did not develop in a vacuum but as

¹¹⁵Cohen, p. 223.

stated above evolved from Judaism. Therefore, our passage from the Hebrew Bible would not have gone completely unnoticed and in fact the oldest patristic reference to our verse, that of Barnabas, places more emphasis on the concept of dominion than on procreation. Writing between the destruction of the temple in Jerusalem in A.D. 70 and Hadrian's defeat of the Bar Kokhba rebellion in A.D.135, Barnabas uses the idea of humans being created in God's image and having been given dominion as typifying the "new creation" begun by Jesus.¹¹⁶ The Epistle of Barnabas, composed late in the first century, in its reference to Genesis 1:26-28 says:

But who is presently able to rule over beasts or fish or birds of the air? For we ought to realize that "to rule" implies that one has authority, so that the one giving the orders is really in control. If, however, this is not now the case, then he has told us when it will be: when we ourselves have been made perfect, and so become heirs of the Lord's covenant.¹¹⁷

As with some of the medieval rabbis Barnabas saw a connection between humanity being made in the "image" or "likeness" of God and its being given dominion by God.

Another consideration is that while in theory the early Christians were not to be concerned with the things of this

¹¹⁶The Epistle of Barnabas, Barnabas and the Didache, trans. Robert A. Kraft. The Apostolic Fathers: A New Translation and Commentary. (New York: Harvard University Press, 1965), pp. 100-101.

¹¹⁷Michael W. Holmes, ed., The Apostolic Fathers. (Grand Rapids: Baker Book House, 1989) p. 170.

world, in reality they were of this world and had attitudes and concerns related to it. Some Christian writers gave serious consideration to humans having "dominion" over the rest of creation in the present world in a very practical sense. Cohen tells us that:

According to their respective interpretations of "image" eikon and "likeness" homoiosis in Genesis 1:26, most (early Christian interpreters) discerned some link between divine resemblance in human beings and their dominion. Either power proceeded from the divine image, which endowed humans with their distinctive rational and spiritual faculties and facilitated control even over other creatures with great physical strength; or humans might use their power to nurture their still unrealized likeness to the deity.¹¹⁸

Didymus the Blind, for example, did not follow in the same tradition as Barnabas, but chose instead to focus on the meaning of "dominion" truly in the natural realm. Regarding this dominion he wrote:

"And master it" signifies an extensive power, since one cannot say of him who has limited power that he has dominion. God has made this gift to the human being...in order that land for growing and land for mining, rich in numerous, diverse materials, be under the rule of the human being...So great is the dominion the human being has received over the land that he transforms it technologically--when he changes it into glass, pottery, and other similar things. That is in effect what it means for the human being to rule "the whole earth."¹¹⁹

¹¹⁸Cohen, p. 226.

¹¹⁹Didymus the Blind of Alexandria, Sur la Genese. Ed. Pierre Nautin and Louis Doutreleau (Paris 1976-1978), quoted in Cohen. p. 227.

Augustine of Hippo saw humans as having been created "midway between the angels and the beasts" and if they had lived as God had intended them to live "they would have enjoyed the primordial blessings of fertility and dominion" without necessary stipulations or adjustments. When the first parents sinned, this fertility and dominion were in jeopardy, but they did survive the fall.¹²⁰ For Augustine, the dominion granted humanity was neither to be viewed symbolically nor allegorically.

It appears that Western Christian exegetes who wrote after Augustine really did not contribute much that was new to the interpretation of Genesis 1:28. They merely echoed or repeated what some of the earlier church fathers had already said. The belief and teachings were that human dominion over all of creation is what God has intended and is why humans, unlike other creatures, are made in God's image. Only humans are given the ability to reason and even though they do not always follow the will of God, as is evident from the Fall, they still remain in the position of having dominion. However, the question still begs to be asked, whether or not this was unlimited dominion, a dominion that allowed for destruction and exploitation?

¹²⁰Augustine of Hippo, The Literal Meaning of Genesis, trans. John Hammond Taylor. 2 vols. Ancient Christian Writers 41-42 (New York: Newman Press, 1982), 2, pp. 73-74.

In agreement with Jewish exegetes the early Christian fathers viewed humanity's dominion status as being of a covenantal nature. Dominion was granted on the basis of loyalty and obedience to God. Part of the covenant for humanity's dominion status was the expectation that the divine will was to be followed and the divine will was not seen as a destructive will. The creation of the world was for the purpose of facilitating human salvation and as already discussed many in the early church did not interpret the concepts of "dominion" and "subdue" in a literal manner, certainly not in the literal manner in which they interpreted "be fertile and increase." Conquering and subduing the physical world was not to be taken quite that literally. For the early church fathers it was neither a theological nor an ethical issue.

In concluding his findings on Genesis 1:28 and its impact on belief and practice of the Ancient and Medieval people, or at least on some of the scholars of that time, Cohen writes:

Ancient and Medieval readers of the Bible did not discount the conferral of dominion in the second half of the primordial blessing, and they often posed numerous questions to define its limits and implications. Yet with a handful of rare and sometimes questionable exceptions, they never construed the divine call to master the earth and rule over its animal population as permission to interfere with the workings of nature--selfishly to exploit the environment or to undermine its

pristine integrity.¹²¹

It may have been as late as the twelfth century before serious consideration was given to the perception that humanity was in fact a part of the created order, not something totally separate from the rest of creation. When such thought processes as these went to work, there suddenly developed an interest in the physical world for its own merit. However, the conquering of the physical world and the exerting of dominion over the other creatures were still not matters of primary importance. It is somewhat significant though that humanity's place in the order of creation was being questioned. Now the physical world took on an importance for its own sake and, therefore, became the subject of much study and investigation. The value now placed on this physical world was something not present during the Ancient period. Cohen puts it as follows:

In a word, medieval intellectuals came to view nature as divine--not in a pantheistic sense, but inasmuch as the physical world derives from the creativity of the supreme nature, the *Natura naturans* that creates life and maintains it by infusing rational order into the cosmos...A revived, classical notion of natural law thereby challenged the tradition that derived from Augustine: Natural law as an expression of the divine was not limited to the primordial conditions before the fall, but reflects the nature of life as

¹²¹Cohen, p. 309.

it has always been.¹²²

During the Reformation there was very little new added to the interpretation of Genesis 1:28. Most theologians, including the early Protestant theologians, continued to focus on the mandate to procreate. While humanity was in a unique position, people were not seen as having the right to interfere in the workings of nature, and they certainly did not have the right to exploit nature. Humanity was put on earth to procreate and to have dominion and only humanity was made in the image of God. Interpreted in this way Genesis 1:28 was seen as being an anthropological statement rather than a statement regarding ecology. Despite White's hypothesis the verse was not interpreted as one which gave humanity licence to an unlimited and destructive dominion. In fact the idea of conquering nature was of little interest or importance during this period.

The study of Ancient and Medieval interpretation of Genesis 1:28 leads to the conclusion that the primary area of interest was not really with nature and the various components of nature. What was important was the development of a belief that humanity was the pinnacle of God's creation and was in a covenantal relationship with God. In this connection, as referred to earlier, the natural world had significance in

¹²²Cohen, p. 280.

that it was the place where this covenantal relationship between humanity and God was tested. This was done in as much as people demonstrated their reverence and obedience to God. The concern for most people was preparing for the life beyond and this world mattered only because, in a sense, it was the testing ground for one's fate in the next world. How life was lived on this earth would determine the entry, or lack of entry, into the heavenly kingdom. The intentional attempts to conquer the natural order would come later, beginning and developing, in the true scientific sense, in the seventeenth and eighteenth centuries.

A Modern View: The Renaissance, the Industrial Revolution, and the Age of Science

There is a period that needs to be referred to at this point and this period is known as the Renaissance which takes us from the early fourteenth to the late sixteenth centuries.¹²³ Our concern with this period is that one of the major areas of weakness for White and others is their neglect to show any recognition of the impact the Renaissance had on humanity's view of creation and its place in creation. For the most part they write as though this period never occurred and had no impact on the view which humanity held

¹²³It is worthy to note here that Francis Bacon lived during this period, from 1561 - 1625. His work will be discussed in the last section of this chapter.

regarding nature, God, and humanity's relationship to each. Wybrow maintains that this is a serious omission on the part of the mastery writers. He says:

Foster, Cox, and even Roszak write as if the history of the idea of mastery can be traced from the Bible directly through Protestantism, as if the Renaissance did not precede, accompany, and subtly penetrate the Reformation.¹²⁴

Very important in the development of thought, as it relates to our topic, is how the "image of God" concept changed during the Renaissance period. Before this period the idea that humans are made in the image of God was sometimes interpreted as meaning that humanity had the right to rule over the rest of nature. With the Renaissance, however, being "in the image of God" took on an additional meaning; humans shared with God in the very activity of creation.¹²⁵

It is generally agreed amongst scholars that the concept of humans being in the "image of God" was the focus of much discussion during the Renaissance period and this resulted in a change in humanity's self-understanding. To overlook this important change in self-understanding is a serious flaw on the part of White and others because, as Wybrow stresses, they

¹²⁴Wybrow, Bible, Baconianism, p. 166.

¹²⁵Regarding humanity's sharing in the activity of creation Wybrow says, "For Renaissance thinkers, the 'image of God' was far more than a statement about man's right to rule over nature; it was a claim that man shared in the most fundamental activity of God--the activity of creation...(Wybrow, Bible, Baconianism, p. 167.)

"... miss a vital link in the history they are trying to trace."¹²⁶ To interpret 'being in the image of God' as having the right to dominate is quite a powerful concept, but to interpret it to mean that humanity is a co-creator with God is an even more powerful image. This would open the way for all kinds of scientific and technological investigations, experiments and advancements that previously would have been gravely condemned by the church and society. Genesis 1:26, with its new interpretation, could now be used as the instrument to support such advancements. In this regard, John Black wrote:

...progress meant the domination of nature, and only by increasing this dominion could the evils and short-comings of life on earth be removed.¹²⁷

When humanity began seeing itself as co-creator with God, it allowed and encouraged people to exert a dominion over nature in order that their creativity might be advanced. From a religious perspective, because they were made in God's image, they were doing what God required them to do as recorded in Genesis 1:26.¹²⁸

It is indeed unfortunate that the Renaissance does not

¹²⁶Wybrow, Bible, Baconianism, p. 167.

¹²⁷John Black, The Dominion of Man, p. 30.

¹²⁸This will be considered in more detail when the impact of Baconianism is discussed. It should be noted, however, that this idea is certainly in agreement with the positions of Cox and Jaki.

figure in the thinking of White and others. This has misled them in some of their conclusions. It has caused them to focus their attention on desacralization while missing the importance of the Renaissance interpretation of humans being made in the image of God. In their writings they have tended to combine or equate "the image of God" concept with the concept of humanity having dominion.

Following the Renaissance we are lead into the age of the Industrial Revolution and the age of Science. Regarding this age, Arnold Toynbee wrote the following:

The Industrial Revolution erupted suddenly, but, like the explosion of the two atomic bombs in 1945, which has been the Industrial Revolution's climax so far, it was the result of deliberately planned preparations. A hundred years earlier, the founding fathers of the Royal Society had set, for themselves and for their successors the objective of promoting the increase of scientific knowledge, not only for its own sake, but also for the systematic application of it to technology. The Industrial Revolution was the fruit of a preceding century of sustained endeavours along these lines.¹²³

Until the seventeenth and eighteenth centuries, humanity attempted to control and dominate the natural environment mostly out of the need to survive and to improve some very difficult living conditions. The impact may have been felt to some degree on the forces of nature, but human population was

¹²³Arnold Toynbee, "The Religious Background of the Present Environmental Crisis", in Ecology and Religion in History, ed. David and Eileen Spring (New York: Harper & Row, Publishers, Inc., 1974), p. 139.

still less than one billion and humanity did not have the technology or scientific knowledge to seriously damage the environment. However, with the Industrial Revolution and the rise of science, nature was about to encounter a seige and a battering as it had never before experienced. Humanity's population was increasing significantly and advancements were rapidly being made in various areas of industry and science. These advancements were not without an ecological cost. The centuries we are discussing were centuries where life, for many Europeans, was more secular than religious. Religion was often seen as a crutch for those who experienced little social justice. This was not a time when great credence was put into symbolism, which so much of the Christian faith embodied; nor was it a time of trust in, and dependence on, the spiritual realm. A utilitarian approach to all things that pertained to life appears to have been the order of the day. Industries were springing up all over Europe and these resulted in people moving to larger urban areas for work. Long hours of assembly line work for meagre wages left many people with little energy for spiritual matters. Science was delving into areas of the universe by way of investigation and experimentation as had never before occurred. This was also the age of Deism and an age when Darwin's theory of evolution was developed and accepted by many people. Needless to say, this was not an age when nature was held in great awe or the mysteries of nature

shown great reverence. This was an age to conquer nature. Nothing about it was to go unchallenged. Newton's influence was also widely felt by this time. His idea that everything about the universe is mechanistic suited the thinkers and scientists of the 17th and 18th centuries just fine. As Seyyed Nasr observes:

During the eighteenth century, while theoretically science continued along lines established in the seventeenth, its philosophic effect was more pronounced. The philosophy of Descartes was drawn to its logical conclusion by the Empiricists, by Hume and by Kant who demonstrated the inability of purely human reason to reach knowledge of the essence of things, thereby opening the door to the irrational philosophies that have followed since his advent. Through the 'encyclopedists' Rousseau and Voltaire, a philosophy of man without a transcendent dimension became popularized and truth reduced to utility. If the seventeenth century still considered problems on the level of their theoretical truth or falsehood, the question now became the utility of knowledge for man, who had now become nothing but a creature of the earth with no other end but to exploit and dominate its riches.¹³⁰

With this view of humanity and its role, there is little wonder that the exploitation of nature now began in earnest. Advancements in areas of science and technology that would benefit humanity were to occur regardless of the cost or effects on the rest of creation.

Not only was nature taking a beating at this time, but,

¹³⁰Seyyed Hossein Nasr, The Encounter of Man And Nature (London: George Allen and Unwin, 1968), pp. 71-72.

as mentioned earlier, traditional religion was as well. In this materialistic/secular age the church did not appeal to a large segment of the population. As a result very little, if anything noteworthy or new, regarding the Biblical passages we have been examining, evolved. Humanity was gaining power over elements of nature as it had not done before and various elements of the cosmos were being investigated in an attempt to better understand their inner workings. It was a mechanistic universe and was to be approached as such. Those who wished to use Genesis 1:26-28 or Psalm 8 out of context to support their position that humanity should dominate all of creation could do so with great liberty since even the church would not come to the rescue of creation. To a large degree, regarding creation, it too was caught up in the same mindset as the rest of society.

One group worthy of being mentioned in our discussion for this time period is the Royal Society in England. During the latter part of the seventeenth century this organization was progressive in helping settle many religious disputes and though it was not a part of the church it was certainly not anti-religious. In fact the first secretary was an Anglican clergyman, by the name of Sprat, who went on to become a bishop. However, while the Royal Society was instrumental in settling religious disputes, it did little to improve the situation that had developed between nature and humanity.

According to Toynbee their doctrine could be found in one part of one verse in the Bible. It is no surprise that we are back to "be fruitful and multiply and replenish the earth and subdue it" (Gen. 1:28). This society believed that the world had been created by God and then given to humanity to do with it as it pleased.¹³¹ This demonstrates once again how our verse, taken out of context and not considered thematically, could be used to the detriment of nature by those who neglected theme and context.

During this period the church teachings are not where we find a more gentle and less mechanistic approach to nature. That is not to say, however, there were no church persons who did take such an approach. It is to some of the poets and other artists we have to look in order to see nature treated with compassion and admiration for its beauty and mystery. For example, Wordsworth, Novalis and Ruskin each attempted to help people understand that there exists a relationship between nature and humanity. Each attempted to show something of the beauty and mystery of the various elements of nature.¹³²

Generally, however, the attitude of people towards creation in the seventeenth and eighteenth centuries was not

¹³¹Toynbee, pp. 140-141.

¹³²Nasr, p. 72.

a kind one and, unfortunately, Christianity did little to improve the situation. The church, in particular the protestant church, most likely approved of the mechanistic view of creation because this removed any of the remaining traces of animism and pantheism that may have survived the Renaissance period. It certainly desacralized and desanctified any element of the natural realm. The monotheism that the church had long tried to establish was now secure, even if the influence of the church on society had been weakened.

This then was not an age where we can look for great dissertations or investigations on Genesis 1:28. For those who were of the faith, God had created humans and all of creation, and had given humanity the mandate to multiply, subdue and dominate. For most persons it was as simple and as literal as that.

The Impact of Baconianism

Sir Francis Bacon, a person of the Renaissance period, whose science long afterwards had such an impact on the thinking of the latter sixteenth century and onwards, deserves special attention in the discussion of humanity and its place in creation. His science and philosophy are still referred to, and respected by many to this day. A strong case could be made that Bacon was the original mastery writer. In fact,

either intentionally or unintentionally, White, Foster, Cox, and others have echoed in language of the twentieth century many of the same beliefs and arguments as those of Bacon.

Another reason he is worthy of our consideration is because he too fell into some of the same pitfalls as those that White and others would later fall into. His arguments, like theirs, were not always adequately supported. In common with White, Bacon also misinterpreted scriptural passages and considered them out of context.

It is here that the discussion will begin regarding some of the flaws in Baconianism, and its approach to nature. We will examine some of the Scripture passages Bacon relied on for his interpretation. This is important because if it is, as some people have argued (White included), that the interpretation of Scripture has been instrumental in humanity taking a very aggressive approach to nature, such an interpretation or mis-interpretation can be found in the writings of Bacon. Like White, and other mastery writers, Bacon relied on only a few scriptural passages to support his contention that humanity is doing the will of God when it exploits nature to improve humanity's living conditions.

As is true for some of the medieval writers before him, Bacon sees in the Genesis accounts of creation proof texts that humanity is to have full dominion over all of nature. In this regard, like them and the mastery writers, he too reads

more into these accounts than is actually there. For example, in them he sees each product of creation as a symbol and places great emphasis on Genesis 1 and its reference to human dominion. This will be briefly discussed a little later.

For Bacon humanity was to exert dominion over all of creation. This, he argued, was made clear in the Genesis creation accounts. However, as is the case with the mastery writers, with a careful examination of the passages referred to, Bacon is not convincing on this point. Like many before him, and many who came after him, he and his followers tended to take a very literal translation of the words "dominion" and "subdue." As has already been shown, when this is done the interpretation often leads to the notion that unlimited dominion for humanity over all of creation was given by God from the beginning. Wybrow, regarding Bacon's emphasis on this concept of dominion, says the following:

Baconian science... was more than a continuation of Renaissance science...it fostered a new, more aggressive attitude toward nature...this new attitude while certainly not unconnected with the notion of 'the image of God', was more often directly linked by the Baconians with the Biblical understanding of 'dominion'. The Baconians pointed to the Bible, especially the Old Testament, as their inspiration for the idea of a virtually unlimited dominion over nature, a dominion to be sustained by a penetrating inquiry into nature and an intensive manipulation of nature through human art.¹³³

¹³³Wybrow, Bible, Baconianism, p. 170.

As stated earlier "dominion" in the unlimited and exploitative sense cannot be supported in the context of the remainder of Scripture. One point made by Rolf Gruner regarding dominion and modern science's approach to nature is helpful in refuting the teachings of Baconianism:

It seems most unlikely that the meaning of this term, [dominion] or rather of the Hebrew original, could have been such that it concerned the attitude to nature, and the treatment of nature, that is characteristic of modern science. 'Dominion' is a political term, and there are historical and other reasons which suggest that the matter should be seen in analogy to the case of a benevolent king or ruler.¹³⁴

Gruner, like so many other scholars, sees an inaccurate interpretation for dominion when it is understood in the sense of unlimited power, or as a term giving humanity the right to use any component of creation as it chooses regardless of the detrimental results. Bacon had no problem with such an interpretation, and in fact, argued it is an accurate one.

In agreement with Saadya b. Joseph Gaon, Bacon argues that after the Fall humans had not lost their privileged position of having dominion. As Bacon interpreted Scripture, God would restore the Paradise that had been lost and through their labours humans would create another Eden. This Eden is

¹³⁴Rolf Gruner, "Science, Nature, And Christianity," Journal of Religious Studies, XXVI (April 1975), 70.

described in Bacon's Bensalm.¹³⁵ For Bacon the purpose of science was to develop a "technological society in which the effects of the Fall would be largely, if not completely, reversed."¹³⁶ All of this would come about through the new science that would be very aggressive in its investigations into a nature. This was perfectly acceptable and, in fact encouraged, since the only purpose for the creation of nature was for the benefit of human beings.

A second idea of Bacon's that deserves some discussion is his interpretation of what he perceives to be symbolism found, as referred to earlier, in the Genesis stories. The Genesis account of darkness being over the face of the deep and then God's creation of light becomes for Bacon a symbol of divine illumination. Knowledge and learning are the very symbols of divine illumination. Before humans had knowledge they existed in darkness.¹³⁷ Each component of creation is a symbol that Bacon can use to support his advancement of the new science. Through the use of selected Biblical passages he could argue that all of the elements of creation as given in the Genesis accounts are but as symbols that relate to the importance of

¹³⁵Arthur Johnston, "Introduction," The Advancement of Learning and New Atlantis by Francis Bacon (Oxford: Clarendon Press, 1974), p. xvii.

¹³⁶Wybrow, p. 187.

¹³⁷Johnston, pp. xvi- xvii.

humanity in the order of creation. They are also symbols of the importance of knowledge as would be brought about through the new science.

He also equates humanity's ability to name all the animals as given in Genesis 2:19 as a sign, if not a symbol, of knowledge in Baconian terms. There is no support, however, from the Genesis accounts themselves for reaching such a conclusion. Taken as it is recorded in Genesis, the reader can only assume that Adam already had this knowledge and that it was not gained through any kind of scientific experiment or invasion of nature. There is no support for the idea that Adam's naming of the animals was related to his having dominion over them.

A third stronghold for Bacon in defence of his position is found in the stories of Solomon. Bacon places great reliance on the account of King Solomon and his wisdom as proof that God intended that humanity should use nature to its advantage and never hesitate to investigate the workings of nature. There is no denying that in the Bible the wisdom of Solomon is marvelled at and much of this wisdom relates to nature. However, what is doubtful is whether or not this wisdom was wisdom as Bacon would have it interpreted. 1 Kings 4:33 and Proverbs 25:2 led Bacon to conclude that the secrets of nature are hidden from humanity by God, but that it is God's intention that humanity should find these secrets out.

It is interesting to note that while Bacon admires Solomon and uses him as an example of wisdom as God had intended it, he completely overlooks Solomon's loss of favour in the sight of God towards the end of his life. He also overlooks how he left behind him a divided kingdom that resulted in the bloodshed and death of so many. It would have been interesting to know how Bacon would have correlated this with his defence of the "wise" Solomon.

There are three points which count decisively against Bacon's reliance upon Solomon as the epitome of wisdom. First, Solomon's wisdom was given by God, and did not result from scientific investigation. Second, there are no grounds to support that Solomon's wisdom went beyond mere description (I Kings 4:33). This is not natural science as understood in Baconianism. Third, many Biblical scholars maintain that Solomon, in attempting to convey moral knowledge, spoke of plants and animals in parables.¹³⁸

A final Biblical reference that needs to be considered as it was interpreted by Bacon was "man being made in the image of God." It is significant to note here that the Renaissance began in Italy, spread throughout Europe, and finally reached England. Baconianism developed as this period was ending and a new age was beginning. This being the case, it had to have

¹³⁸See also Wybrow, Bible, Baconianism, p. 186.

been influenced by Renaissance thinking. During the Renaissance the "image of God" in humanity had come to mean the creativity of humanity. No longer were people to be mere spectators filled with awe at the marvels of the world around them. They were now to become participants in the very act of creation. They were to become partners with God. This was a position reserved only for God's prized creature in creation, the human being. For this idea to take hold in the minds of people, the non-divinity of nature had to be emphasized and the obligation to "have dominion over" had to be stressed. In Baconian thought these could hardly be separated. Humans had a special status in God's creation. This privileged position of humans, because they are in God's image, was the main concern. Rolf Gruner, regarding the "image of God" and humanity's position in creation as understood in Baconianism, writes the following:

What is decisive is the special status of man in nature, and as a rule the revisionists, like Bacon and many others before them, try to establish this special status by reference to Scripture, to be more precise, by reference to two ideas which, although closely connected, are nevertheless different. One is that man, and man alone, was created in the image of God, the other that man was given dominion over the rest of creation.¹³⁹

Gruner goes on to say that Bacon put great emphasis on the "image" and used it to stress the point that humans were in a

¹³⁹Gruner, p. 69.

sense God's partners. He maintains that once humans saw themselves as being in the image of God, then it was but a short step to their seeing themselves in a very superior position to the rest of creation.¹⁴⁰ Believing that the rest of creation was created by God for them and that they were to be co-creators with God, one can see that to dominate all of creation could soon become an acceptable attitude, and in fact an obligation. Because humans are made in the image of God, they are co-creators with God, who has fully intended that the "hidden secrets" of all of nature be revealed when the right questions are put to it. For Bacon it was somewhat like a game of hide and seek. It was from this idea that his phrase "putting nature to the question" emerged. By this was meant, according to Michael B. Foster, the use of the experimental method. This is what made modern science, which was begun by Bacon, distinctive from science as it had been.¹⁴¹ As understood in Baconianism, this experimental method was seen to be Christian in its approach and supported by the Bible.

The motivation for his trying to support the advancement of scientific experiments through the use of selected Biblical passages has not gone unquestioned. Bacon lived in an age when the church was a powerful institution and the King

¹⁴⁰Gruner, pp. 73-75.

¹⁴¹Michael B. Foster, Mystery and Philosophy (Connecticut: Greenwood Press, 1980), p. 56.

(James) was head of the church. It was an age when church and state were, for the most part, one. Bacon and his followers could only progress in science provided they could demonstrate that such progression did not go against the teachings of the Bible or the beliefs of the church. Others before him had died for heresy. In order to support his views of humanity and its place and role in creation, Bacon went directly to the Bible to show that the "secrets of nature" were intended by God to be revealed to humanity. Regardless of how ruthless and barbaric the actions of people were towards the rest of creation, it was the progression of humanity that was important, and through such progression God's will was being done.

By using the Bible to support his aggressive approach to creation, Bacon would also receive the support of church and state, and in the process ensure his own personal safety in that he would not be imprisoned or executed for making heretical statements regarding the workings of nature and humanity's role therein. If the Bible supported what he said, then neither church nor state officials could deny him the right to proceed both in his experiments and in his teachings.

These reasons may support the darker side of Bacon's motives and may be a misjudgment of the man. However, the reality was that there was a very powerful church in existence and no matter how noble his intentions may have been he surely

would have been intelligent enough to know that gaining the favour of church officials was paramount to his promoting his views publicly.

Arthur Johnston comes to Bacon's defense. In his introduction to The Advancement of Learning and New Atlantis, he writes:

He [Bacon] hoped to provide men with a method whereby they could make 'better use and management of the human mind.' He confidently expected that the product of his method would be an enlargement of human knowledge of God's works. But knowledge meant power--he power to improve man's lot by means of useful inventions... To understand the book of God's works, created Nature, was as important for Bacon as to understand the book of his word, the Bible. He did not believe that the two kinds of knowledge would contradict each other.¹⁴²

For people like Lynn White, however, who wish to blame Christianity for being the cause of so many of our abusive attitudes and actions towards nature and for its being at the root of our superior attitude towards the rest of nature, Francis Bacon and his interpretation of Scripture must share the blame of helping develop such attitudes and actions. For those like Harvey Cox, who wish to sing the praises of scientific and technological advancements, Baconianism can also be praised for bringing humanity out of ancient pagan and animistic beliefs regarding the various elements of nature. Progress for the advantage of humanity was all that was

¹⁴²Johnston, p. vii.

important. Nature (creation) in and of itself had no value other than that it could serve to improve life for humans on earth.

With the acceptance of Baconianism by more and more people, science could now progress with very few restraints and its objectives could be pursued. Foster, in writing about the objectives of Bacon and his followers, said:

The new objective had been proclaimed by one of the prophets of the new science, by Bacon, when he spoke of knowledge as power, and proposed as the aim of his new Academy 'the enlargements of the bounds of human empire to the effecting of all things possible'¹⁴³

Baconianism was a science of action. Contemplation, as had been promoted by such people as Aristotle and later by Thomas Aquinas, as well as by both Jewish and Christian traditions generally, was not viewed favourably by Bacon and his followers. Christian charity could only be shown through action. The charity demanded by Christianity, as understood in Baconianism, was not of the type whereby one gave to the poor, but was of the type that would result in improved living conditions for humankind generally. This could only be achieved through scientific experimentation on nature. Thus Gruner says:

By the time of Bacon--(chief trumpeter of modern science)--contemplation is out and action is in.

¹⁴³Michael B. Foster, Mystery and Philosophy (Connecticut: Greenwood Press, 1980), p. 54.

And it is to be expected that a man who saw knowledge as power would have no use for contemplation. The acquisition and exercise of the power that is knowledge is associated by Bacon with Christian charity. And charity for him did not mean any longer the relatively modest duty to help the needy we encounter in daily life, but it is no less the improvement of mankind... if one wants to represent science as an offspring of Christianity, one has either to ignore contemplation altogether or to deny that it forms a genuine part of the Christian tradition. By definition, as it were, there is then no place in Christianity for contemplation, or only a very minor one, and all important space is filled with action, i.e., charity.¹⁴⁴

This view certainly does not find support in either the Jewish or Christian tradition, and if one were to rely on Scripture then there is evidence that Jesus valued contemplation. Consider, for example, Matthew 14:13 where Jesus went to a "deserted place by himself" or consider any of the synoptic gospel writers' account of Jesus in the wilderness (Matthew 4:1-11, Mark 1:12-13 and Luke 4:1-13).¹⁴⁵ While not stating explicitly that Jesus contemplated during this time, it is certainly inferred and has been assumed by the Christian Church that he did spend time in contemplation.

Bacon's view of knowledge and charity was an attempt to support his argument that:

¹⁴⁴Gruner, p. 67.

¹⁴⁵See also Luke 10:38-42 where Jesus commends the behaviour of Mary and her willingness to listen and contemplate, but condemns Martha's behaviour because of her preoccupation with her many tasks.

nature is first forced to reveal her secrets to man (when she is 'put to the question' by the experimenter), and she is then forced to behave in accordance with man's wishes, that is to do him no harm and to make his life easier.¹⁴⁶

His teachings were couched in aggressive language and terminology. Bacon taught that knowledge of nature would come only from prying into it, invading it, and violating it. In Bacon's preface to The Novum Organum he writes:

But if any man there be who, not content to rest in and use the knowledge which has already been discovered, aspires to penetrate further; to overcome, not an adversary in argument, but nature in action; to seek, not pretty and probable conjectures, but certain and demonstrable knowledge;--I invite all such to join themselves as true sons of knowledge, with me, that passing by the outer courts of nature, which numbers have trodden, we may find a way at length into her inner chamber.¹⁴⁷

In this passage there are references to rape and penetration with regards to "man's" conquest over a "female" nature. Yet these terms are not seen in a negative light but as the right of the "man" (humanity) to make the "female" (nature) submit and provide comfort and satisfaction. To quote Wybrow:

When one compares the language of Bacon and his followers about our relations to nature - the language of penetration, of sexual conquest, of coercion, of torture - with the language of the Bible, one finds no parallel. The experimental

¹⁴⁶Gruner, p. 69.

¹⁴⁷John M. Robertson, ed., The Philosophical Works of Francis Bacon (New York: Books For Libraries Press, 1970), pp. 257-258.

procedures recommended by the Baconians have no Biblical model.¹⁴⁸

It is evident that the Baconians accepted the Renaissance view of humanity and added to it their conviction that through the new science humankind would reach its potential as God had intended. As Gruner rightly concludes:

The revisionists wish to say that modern science is somehow to be seen as the logical outcome of Christian belief. Their view is based a good deal on the fact that the early promoters and practitioners of science, men like Bacon, Kepler, and Newton, were inclined to give their science a religious interpretation and justification. But this means no more than that they conceived of Christianity in a way such that they could feel their aims and activities to be sanctioned by it, a point of no little importance at a time when religion was still a force in men's lives. Their interpretation was one-sided; they emphasized what suited their purpose and played down what did not...¹⁴⁹

Baconianism, like the mastery hypothesis which followed it some three hundred years later, made some serious omissions in its scriptural analysis in order to support its theories. To make matters worse, like the mastery hypothesis, it also reached inaccurate interpretations from many of the Scripture passages it chose to use in its defence. The problem here, as with the mastery writers, is not with the teaching of the holy books of Judaism and Christianity but with the way people have interpreted them. Just as White has failed, so do did Bacon

¹⁴⁸Wybrow, Bible, Baconianism, p. 181.

¹⁴⁹Gruner, p. 242.

before him, in the hypothesis that the Bible teaches an unlimited and exploitative domination of creation by humans. Baconianism cannot be supported through Biblical references when they are considered thematically and interpreted accurately.

CHAPTER 3

A Reading of Recovery

Misinterpretations of the Bible have continued to the present day, and in order to refute the arguments of such people as Lynn White, it is imperative that these misinterpretations be brought to light. It is also important, however, to present an alternative view to that of White. We will embark here on a "reading of recovery" -- that is, we will attempt to read some biblical texts in a manner more in keeping with thematic and contextual concerns. White and other mastery writers, as has been shown, relied on Biblical passages out of context and paid little attention to predominant themes found in Scripture. Their purpose was to find Biblical support for a hypothesis they had already reached, regardless of context or broader themes. Arguing for their conviction that human dominance over the rest of nature is a Biblical teaching, they choose to isolate passages and overlook important stories and accounts which would have weakened their position. Generally, they showed a total disregard for much scholarly interpretation of Scripture which has been passed down through the ages. Moreover, much of what they present, apart from being theologically unsound and lacking significant Biblical support, is not really innovative or original, as was evident in our study of Bacon.

There are many Biblical passages which can be used to support our argument, only some of which will be considered in this part of the work. Enough will be studied to demonstrate that the mastery writers, and others of the same opinion, who rely only on one or two verses to support their viewpoint from the Biblical perspective present a very weak argument. In their reliance on Genesis 1:26-28, Genesis 2:19-20, and Psalm 8:5-8 the mastery writers overlook several other passages which give a different slant regarding humanity's relationship with the rest of nature and nature's relationship with God. Through such an approach thematic insight is lost and this results in grave misinterpretations on the part of White and others.

Although the Genesis creation stories have been made reference to already, because they receive the greatest attention from White and other mastery writers, they are worthy of further discussion at this point. They are instrumental in showing how the mastery writers have neglected the importance of theme, tone and context. This is true whether they are arguing that mastery of creation is good or bad. The problem is that, for the most part, they choose their selected verses without considering the story of creation as a whole, and without considering what is said in other parts of the Bible as it relates to creation and

humanity's place therein.¹⁵⁰ For example in Genesis 1, while humanity is told that certain things within nature are suitable as food for humans and for animals, those suitable are only plant life and not animal life. In Genesis 2 this same restriction applies except in this story there is one more restriction in that there is the fruit of one particular tree that humanity is not to eat. While one may argue that this is metaphoric and has less to do with diet than with morality and obedience, it nevertheless shows that in Hebrew interpretation, from the beginning, there were restrictions. Humanity did not have free reign over everything.

More important is the tone of harmony in the first story as recorded in the Bible. There is no notion that humans and animals are enemies and there is that recurring word "good" used after the completion of each component of nature. Thematically there is no sense of aggression, exploitation, violence or ruthless dominance on the part of one creature over another. This will come later when, despite what the mastery writers would have us believe, humanity has gone against what God had intended. Even then, after the Flood

¹⁵⁰The writer is aware that the Genesis creation stories came out of different periods in Hebrew history and were formulated by different sources. The point being made here, however, is that there can still be found a predominant theme and there is a definite tone which runs throughout the stories making them thematically unified even though they are two separate accounts.

when God renews the covenant in Genesis 9:8-12 it is renewed not only with humanity but also with the animals:

Then God said to Noah, and to his sons with him, "As for me, I am establishing my covenant with you and your descendants after you; and with every living creature that is with you, the birds, the domestic animals, and every animal of the earth with you, as many as came out of the ark. I establish my covenant with you, that never again shall all flesh be cut off by the waters of a flood; and never again shall there be a flood to destroy the earth." God said, "This is the sign of the covenant that I make between me and you and every living creature that is with you, for all future generations..." (Genesis 9:8-12)

This passage serves to show that in early Hebrew thought animals were certainly given high regard in God's creation.

While the Genesis stories, according to Jewish and Christian interpretation, place humanity in a unique position, and the words "subdue" and "dominate" are used in reference to humanity's position, the words must be understood in the context of the total story. How humanity, the rest of creation and God interrelate are an important consideration here.

In a reading of recovery some attention must be given to Psalm 8.¹⁵¹ This is a favourite of the mastery writers when they wish to show that in Jewish tradition all of creation was put under the control of humanity. Almost without exception,

¹⁵¹Following a brief examination of this Psalm, we will consider various Scripture passages as they relate to the different components of creation, the earth, the sea, and the sky and the various creatures that exist.

after they have made their statements regarding Genesis 1:26-28 and Genesis 2:19-20, the mastery writers will use this Psalm to support their position. What these writers have chosen to do with the Genesis creation stories, they have also chosen to do with this Psalm. They have chosen to take it out of its context and focus only on the verses, in this case verses 5-8 which emphasize the "greatness" of "man". If read in its proper context, by considering the remainder of the Psalm, it becomes evident that this was written in praise of the greatness of God and God's creation. It focuses on how humanity should show humility and reverence for God's handiwork because people have been given such a prestigious position in creation. The passage certainly does not carry with it a tone that even infers that humanity has the right to exploit and destroy that which God has created. The Psalm ends by a literary device called "closure by return" in which once again it is praise and admiration for all that God has created. By ending the Psalm this way the writer has placed the emphasis where he wanted it to be, on the greatness of God, not on humanity's power to exploit and destroy.

A second point to be made about this Psalm, and this is one that only a closer examination reveals, is that according to this Psalmist it is not a total mastery over everything which has been created that is given to humanity by God.

A close look at Psalm 8 reveals that "the works of

thy hands", the "all things" over which man is made to rule (mashal), refer (despite their seeming generality) to only a limited number of creatures, carefully listed by the Psalmist as: "all sheep and oxen" - domestic animals; "the beasts of the field" - wild animals, perhaps including the 'creeping things'; "the birds of the air"; and "the fish of the sea, whatever passes along the path of the sea." In other words man is meant to "rule" (mashal) over the animals, not over 'nature' as a whole.¹⁵²

As is evident here, there is no reference made to the heavenly bodies, to the earth, or to the sea, only to the creatures of the earth, land and sea. It is only by making general, sweeping statements that this Psalm can be used by White and others to support the argument that the Bible encourages an unlimited and exploitative view of creation by humanity.

Several other Scripture passages will now be briefly considered to demonstrate that the Bible portrays a creation that is cared for by God and is to be shown proper respect by humanity through nurturing and appreciation.

There are several passages which make specific reference to the land. These will show that it was never the intention of the Biblical writers to portray humanity as having been given an unlimited dominion over the land or to show a land that was unresponsive to the way it was treated by humanity. Isaiah 65:21-22 (and 25 reads:

They shall build houses and inhabit them; they

¹⁵²Wybrow, Bible, Baconianism, p. 150.

shall plant vineyards, and eat their fruit. They shall not build and another inhabit; they shall not plant and another eat; for like the days of a tree shall the days of my people be, and my chosen shall long enjoy the works of their hands... The wolf and the lamb shall feed together, the lion shall eat straw like the ox: but the serpent--its food shall be dust! They shall not hurt nor destroy on all my holy mountain, says the Lord.

In this passage, while recognizing it as being poetic, there is still a sense of harmony that comes through to the reader.

Holmes Rolston III writes of this passage:

The Creation and Fall story is a piece of poetry, as is the lion eating straw like the ox ... The wolf lying down with the lamb does not make any biological sense, since ecological harmony includes the violence of eating and being eaten... The wolf with the lamb makes sense only poetically, expressing human hopes for redemption within culture.¹⁵³

While Rolston may be right, there can be no denying that Isaiah presents a picture where, in God's kingdom, there is harmony and the sense of dominance and destruction have been removed. For example as portrayed in Isaiah 65:21, 22, 25 and Isaiah 55:12 all of creation will be a part of a peaceful existence and all will praise God. Regarding these passages Hessal says:

In sharp contrast to modern church and culture, biblical thought poses no either/or choice between caring for people and caring for the earth. Covenant theology emphasized that the way people

¹⁵³Holmes Rolston, III, "Does Nature Need To Be Redeemed?", Zygon, Vol. 29, No. 2 (June 1994), 207.

treat the land is as important a sign of faithfulness as is the way they treat each other.¹⁵⁴

What is important here is not whether or not this is purely poetic language, but the attitude that is shown towards various components of nature. There is a sense of gentleness and peacefulness portrayed.

Another Biblical passage which makes direct reference to the land and how it is to be treated is in Exodus 23:10-11 and reiterated in the Holiness Code (Leviticus 25:1-7). In this passage God speaks to Moses telling him to convey to the people that the land is to be given a "rest" from farming every seventh year. Wybrow says:

... the main point here is not so much the possibility that the earth is 'animated', but the fact that man's dominion over it is restricted by law.¹⁵⁵

In Jeremiah 27:5 humanity is again reminded that the land belongs to God, not to the creatures of the earth, humans included. This certainly would have been interpreted as humanity having, at most, a limited dominion.

Ruth Page refers to prophecy in the Hebrew Bible and how both in its prophecies and in its analogies the land and treatment of the land are a recurring theme. Obedience to the

¹⁵⁴Dieter T. Hessel, ed., After Nature's Revolt (Minneapolis: Fortress Press, 1992), p. 11.

¹⁵⁵Wybrow, Bible, Baconianism, p. 156.

laws of God result in prosperity regarding the earth. Page refers to Amos 1:2, where, as a result of wrongdoing on the part of the Israelites: "the pastures of the shepherds wither, and the top of Carmel dries up." She also refers to Ezekiel 19:10-13, a time when the people had been taken into exile: "... it [the vine] was plucked up in fury, cast down to the ground... Now it is transplanted into the wilderness, into a dry and thirsty land."¹⁵⁶ The purpose for including these passages is that they too show that the Biblical writers did not teach that the land was under humanity's total control. In fact it responds favourably to humanity only when proper obedience and reverence to God is given. Jeremiah 27:5 and Psalm 65:9-13 also support the view that it is God who really determines the productivity of the land. Psalm 24 in its opening statement is explicit about who owns the earth: "The earth is the Lord's and all that is in it." John Black, making reference to this passage, writes:

Man is frequently reminded of his subordinate position; he may have been put on earth to look after it, but there is no suggestion of ownership at the time of the creation, nor is there any suggestion that in the course of time man might come to inherit the earth for himself...¹⁵⁷

¹⁵⁶Ruth Page, "The Bible and the Natural World," in Christianity and Ecology, ed. Elizabeth Breuilly and Martin Palmer (New York: Cassell Publishers Ltd., 1992), p. 21.

¹⁵⁷John Black, The Dominion of Man (Edinburgh: The University Press, 1970), p. 48.

Creation, including the land, is portrayed as being alive. At times it is personified. For example, in Psalm 96:11-13 nature is asked to praise God and this same idea is found in Psalm 148:1-13. This Psalm does not portray a cold and mechanistic view of creation. Instead all of nature is vibrant and alive and asked to worship its creator. This is a very different view of nature from that which the Baconians would later put forth. This view of nature as being alive and vibrant is also supported in Isaiah 44:23, Psalms 19:1-4 and Psalm 114:1-8.¹⁵⁸

While the New Testament does not have as many references to treatment of the land, as the Hebrew Bible does, Jesus did make some references to the natural elements in his teaching. Philip Hefner says that he "chides his listeners for not being in close enough touch with the natural world to perceive the love that its processes enact." Matthew 6:25-31 and Matthew 5:43-48 show how God blesses all of creation and certainly the passages do not portray an "impersonal natural law."¹⁵⁹ In Matthew 5:43-48 the reader is told how God makes the sun to shine and the rain to fall, and in Matthew 6:25-31 the reader is reminded of the beauty God gives the flowers and how God

¹⁵⁸Deuteronomy 20:19-20 also expresses a high regard for vegetation, trees in particular. This passage was discussed in some detail earlier in this work.

¹⁵⁹Philip Hefner, "Nature, God's Great Project," *Zygon*, xvii, 3 (Sept. 1992), 335.

clothes the grass. While these points may be of secondary importance to the message conveyed, they, nevertheless, show a first century appreciation for some of the components of nature.

Rolf Gruner adds an interesting concept to the value of nature and shows how thematically it is instrumental in the New Testament teaching of the concept of spiritual grace. He writes:

According to the Christian view ... matter, nature, the world are good because their Creator is good. A world created by a good God cannot be evil, and if God incarnated himself, the flesh cannot be intrinsically bad. It is already for this reason that the concern with God entails the concern with his creation. Hence, an interest in the world, a curiosity about it, and the endeavour to know it becomes religious duties. They amount to the glorification of God in his works and to the recognition of natural phenomena as symbols of spiritual grace.¹⁶⁰

While Gruner argues for the advancement of science, just as Cox and Foster do, the above quotation supports the argument that in Christianity creation is seen as being good and this in itself entails certain responsibilities on the part of humans.

The treatment of animals is also given specific coverage in various passages of the Bible. Again, this is different from what the mastery writers and Baconian teaching would have

¹⁶⁰Rolf Gruner, "Science, Nature, and Christianity," Journal of Theological Studies, XXVI 9 April 1975), 57.

the reader believe. In several passages of the Bible it is obvious humanity is not given unlimited dominion over the other creatures of the earth any more than it is given unlimited dominion over the earth itself. In fact some passages can be used to support the idea that the Bible demonstrates a kinship between the animals and humans. There is also the idea in some of the prophecies that in the ideal world, a world where people live as God would have them live, there will be harmony between humans and animals.

The idea of kinship is shown in Job 40:15¹⁶¹ when God says to Job: "Look at Behemoth which I made just as I made you...." Here, there is no distinction between the making of the person and the making of the animal.

The idea of harmony between the various creatures of the earth is also portrayed in several passages. One such passage, and perhaps the best known, is Isaiah 11: 6-9:

The wolf shall live with the lamb, the leopard shall lie down with the kid, the calf and the lion and the fatling together; and a little child shall lead them. The cow and the bear shall graze, their young shall lie down together; and the lion shall eat straw like the ox. The nursing child shall play over the hole of the asp, and the weaned child shall put its hand on the adder's den. They will not hurt or destroy on all my holy mountain; for the earth will be full of the knowledge of the Lord as the waters that cover the sea.

In this passage the reader is told that when God's kingdom

¹⁶¹Job will be discussed in more detail a little later.

comes on earth all creatures will live in harmony. Here harmonious living is the ideal and if things on earth were as God would have them to be creatures would not destroy each other.

Hosea, in his prophecy telling how Israel will once again show faithfulness to God, said the following:

I will make for you a covenant on that day with the wild animals, the birds of the air, and the creeping things of the ground... (Hosea 2:18).

Here, again, is shown the inclusion of various creatures other than humans. These creatures are very much a part of God's kingdom and are included in the promises of God regarding a harmonious future and God's glory.

Second Isaiah, in connection with seeing the glory of God, said: "And the glory of the Lord shall be revealed, and all flesh shall see it together" The passage says all flesh. It does not refer only to human flesh.

These passages show a kinship between humanity and the other creatures of the earth and can hardly be used to argue that humanity has the right to exploit and destroy other creatures in the name of science. Nor could they be properly used to argue that the Bible places humanity in such a position that it has unlimited mastery over all of creation. On the contrary as Heirs says about Isaiah 11:6-9:

Greenpeace and Defenders of Wildlife could not ask for more. The Messiah himself was expected to come riding an ass's colt. In the new age, there would

be shelter for all the birds of the air and beasts of the fields.¹⁶²

Just as the prophets had shown that the land occupied by humans was, in a sense, a sacred trust, so too were animals.

Exodus 23:12 states:

Six days shall you do your work, but on the seventh day you shall rest, so that your ox and donkey may have relief...

In this passage it is clear that those animals which people use for their farming and other work are to be given a rest.

In Psalm 104:10-30 and in Isaiah 40:11 God's love and nurturing for all creatures are shown. While the Isaiah passage is an analogy, the words chosen demonstrate a caring and nurturing theme that is present for all creatures. In Deuteronomy 22:6-7 there is a very conservationist approach when people are told that they are not to take the mother of young birds if they find a fallen nest. Each of these passages negates the idea of an unlimited dominion having been bestowed on humanity. Moreover, in response to God's love for them, all creatures praise God (Psalm 148).

Showing mercy towards animals is another requirement of God given in the Bible. For example, in Deuteronomy 22:10 people are expressly told that they are not to yoke an ox and a donkey together and they are told that they are not to

¹⁶²Richard Heirs, "Ecology, Biblical Theology, And Methodology: Biblical Perspectives On The Environment," Zygon vol. 19, no. 1 (March 1984), 50.

muzzle an ox during the threshing period. Both of these rules were there for the comfort and benefit of the animal. It was also forbidden to slaughter an ox or a sheep together with its offspring on the same day (Deut. 22:6-7). As Robert Gordis observes:

The traditional laws of Kosher slaughtering shehitah are designed to keep alive the sense of reverence for life by minimizing the pain of the animal and by forbidding the eating of blood, which is the seat of life.¹⁶³

In Proverbs 12:10 where it reads: "The righteous know the needs of their animals, but the mercy of the wicked is cruel", it is again made clear that humans are to care for, and show mercy to, animals.

New Testament references to the treatment of animals are few but there are some which indicate God's care for them and these serve to refute the argument that humans may do as they please with animal life. For example, Matthew 10:29, in an attempt to show God's care for people, records that Jesus said that not even a sparrow falls without God's consent. While it is true Jesus is teaching about how much God cares for people, his illustration portrays a God who cares for one of the smallest of birds.

Brief reference will now be made to the idea of humanity having control over the heavens. Psalm 115:16 states clearly

¹⁶³Robert Gordis, "Ecology in the Jewish Tradition," Midstream, 31 (1985), 20.

that the heavens are not part of humanity's domain. "The heavens are the Lord's heavens, but the earth he has given to human beings." Psalm 104:1-4 reinforces this same idea. In this passage the sky has become the dwelling place of God.

Two more Biblical references will suffice to show that White and others cannot support their argument based on a couple of Biblical references, out of context and without regard for theme. The Biblical writings, regardless of how some of them may have later been interpreted, do not support thematically or contextually an unlimited human dominion over the rest of creation. The final two Biblical references to be made are to the stories of Job and Jonah.

With regards to the story of Job we are concerned with what messages may be conveyed regarding the natural realm and its connection with humanity and God. It is not the purpose of this work to get into a discussion of the historical truth of the story or to get into trying to give explanations for various types of figurative language used in the story. What will be addressed is the attitude which is shown regarding creation and humanity's place in that creation as seen by God and as interpreted by these Hebrew writers.

The story of Job is perhaps one of the most humbling stories for humanity. Here is a person who tried to do what God required of him, yet suffered greatly both physically and mentally. As a result he tried to question God regarding

various occurrences and calamities. Job felt he had a right to have all the answers and that God should provide them. It is the response of God that reminds Job that he is not a god but human and as such is limited both in what he can and should do, and in what he can and should know. Job 38:3-4; 39:19, 26; 40:7-9, 15, 18-19 and 42:4 all remind Job of his humanity and of his place in creation. As Mark I. Wallace says:

The Spirit reminds us that, as God's images we are earth creatures fashioned from the muck and mire of soil... God reminds Job of his place in creation - that he was not present at the foundations of the world, that he did not create the horse and the peacock and the lion. Job is reminded that he is a member of a wider biotic community and that he is not superior to other forms of life; he and his kind are not the measure of all things.¹⁶⁴

While a few passages from this lengthy story have been chosen to support the argument, the same theme runs throughout the story. Humanity, in this case symbolized by Job, is not portrayed as being entitled to either unlimited power or unlimited knowledge. Things of earth, sky and water are portrayed as being of significance in God's creation. Regarding the sky and the creation of the earth, for instance, we read: "Morning stars sang together and all the heavenly beings shouted for joy as God lay the foundations of the earth" (Job 38:4-7). In this story none of the components of

¹⁶⁴Mark I. Wallace, "The Wild Bird Who Heals: Recovering The Spirit In Nature," Theology Today, (April 1993), 19 & 22.

nature have their significance or value in their usefulness to humanity. They are significant in and of themselves. They take part in what is happening and they are capable of praise for the creator. Heirs puts it well:

YHWH's care for the creation which he brought forth is expressed thematically in his first response to Job in chapter's 38-39. Here, as in the first chapter of Genesis, it is clear that God's creatures were meant to exist, whether or not they were useful to humans, for example, the mountain goat and the wild ass "to whom I have given the steppe for his home" (Job 39:5-6). All the earth is full of God's creatures; the sea teems with innumerable living beings "both great and small" (Ps. 104:24-25). The mountains produce food for Behemoth and there "all the wild beasts play" (Job 40:20).¹⁶⁵

It is interesting to note that just as Wallace makes reference to this story reminding Job of his having been formed from the soil, this same message is conveyed in the Genesis creation story in which God takes the soil and from it forms man.

Job had a lot to learn regarding his place in creation. The lesson he had to learn was significantly different from that taught by science of the eighteenth and nineteenth centuries, different from that taught by Newton and Bacon, and different from that taught as a valid interpretation of Scripture by White and others. The story of Job is more in keeping with the theme of humanity being a part of creation, not something separate from it. It certainly does not support

¹⁶⁵Heirs, pp. 48-49.

the argument that the Bible teaches such a superiority of humans over the rest of creation that they have the right to exploit all of its other parts. The ecological woes being faced today cannot be blamed on the teachings of the book of Job. While some of the interpretations of Job and interpretations of various other passages of Scripture may be held responsible, that is the fault of the interpreter, not the fault of the source.

One final Biblical reference will suffice to secure our argument. The story of Jonah and the whale is perhaps one of the best known of the Biblical stories. As with the story of Job, our concern is with determining exactly what this story says regarding humanity and its relationship to the rest of creation. Its message is explicit. In this story God's care and concern is not only for the people of Ninevah but for the cattle of Ninevah as well. When the king decrees that the people are to show repentance by putting on sackcloth and fasting, he also issues the same decree for the beasts of the city. This demonstrates that not only are humans considered to have a relationship with God, but so too are the animals. An interesting comparison can be made here with Genesis 8:1 where it reads: "And God remembered Noah, and every living thing, and all the cattle that was with him in the ark...." The concern that is shown for the cattle of Ninevah is also shown in the story of Noah and the Flood. There appears to be

a common theme running through these stories. Humanity's dominion over animals is limited and God cares for the animals just as God cares for people. They are to be treated with mercy and kindness. In God's creation they too are "good".

Earlier much attention was given to an examination of ancient and medieval rabbinic teaching regarding Genesis 1:28. It is not our purpose to re-examine these again, but a brief reference to one aspect of the rabbinic teaching is appropriate here. This is so because it not only relates directly to one component of nature but also has had an influence on attitude towards various components of nature through the ages. What is being referred to is the injunction of bal tashchit (you shall not destroy). This injunction came out of the post-biblical Judaic sources and related to the commandment not to destroy fruit-bearing trees. There is, however, a more profound religious aspect to this injunction and that is the recognition that within everything of nature is found the embodiment of God's creative power. This can lead to the conclusion that whatever in nature is created by humanity is also a manifestation of God's creative power. This adds a sacredness to the things of nature and to humanity's creativeness that is not recognized by the mastery writers. Several Medieval Torah commentators, such as Saadiah, Bahya ben Asher, Ibn Ezra, Nahmanides, and Hinnukh, attempted to explain this Mitzvah. Hinnukh, for our purposes,

perhaps put it best when he said the following:

To the righteousness person, no man is so unimportant that one may ignore his loss and not try to save him. In the same light, no living thing, not even a mustard seed, is so insignificant that it may be destroyed without reasonable cause.¹⁶⁶

It is recorded that one of the Jewish sages of long ago taught that if a person is planting a tree and suddenly the Messiah should appear, the person should continue planting the tree. Only when the task is finished should the person turn to the Messiah. The Messiah will understand trees are life itself.¹⁶⁷

All of these Biblical references and explanations, as well as the brief reference made to the Post Biblical Judaic sources, serve to show that conclusions reached by White and other mastery writers are problematic. They are problematic in that from a thematic and a contextual perspective, the Bible, rather than presenting the idea of God giving an unlimited mastery over all of creation to humanity, presents a creation that has intrinsic worth. It is a creation of which humanity is an integral part. Responsibility is given to humanity to nurture and care for creation, but a dominance

¹⁶⁶The information regarding bal tashchit is found in a section of student material published in the form of student work sheets by the Jewish National Fund for Canada and compiled by Keren Kayemeth LeIsrael.

¹⁶⁷Jewish National Fund of Canada

that is exploitative and destructive is not a part of the Biblical teaching in either the Hebrew Bible or New Testament. It is unfortunate that, as a result of their selection of isolated passages some interpreters of the Bible have read such messages into it. As Robert Murray concludes:

There are charges to be brought: not against the biblical creation accounts themselves, but against what exegesis, theology and preaching have often made of them... there has been at least a serious failure to check unjustified deductions from the passages about the charge to humankind to rule over other creatures. But worse, some teachers in the name of the Bible and Christianity have themselves made and taught such deductions.¹⁶⁸

White and others have made unjustified deductions from the biblical creation accounts and they have chosen to consider others before them of a Judeo-Christian background who have made the same unjustified deductions. Our reading of recovery has indicated that we can find in the Bible an attitude quite different from that attributed to it by White and the mastery writers.

¹⁶⁸Robert Murray, The Cosmic Covenant (London: Shees & Ward Ltd., 1992), p. 162.

CHAPTER 4

Conclusion

Christianity's Burden of Guilt: A Reappraisal

There can be no denying that the mastery hypothesis is not without support among some theologians, historians and sociologists. The question we are left with, however, is whether or not the mastery hypothesis, especially as put forth by Lynn White, can be supported using Scripture as a bases. If, as Lynn White purports, our ecological problems are the result of Judeo-Christian teaching, does that necessarily mean that those who have taught an aggressive approach to creation have understood Scripture accurately? If this could be proven then Christianity would have to accept a large burden of guilt for the ecological crisis. Another question worthy of consideration is whether or not the aggressive approach to creation is the only approach that Jews and Christians have taught down through the ages. It is regarding this question that one finds the focus of White's article. If one were to rely totally on his article to reach conclusions then one would conclude that Francis of Assisi is the only person coming out of the Judeo-Christian background who can be presented as having had any sensitivity to creation. This, again, is unfortunate. White reaches invalid conclusions and influences other people who read his article to reach the same

invalid conclusions.

Basically, with regards to Lynn White and his hypothesis, we are left with two major questions: (i) Does the Bible actually teach that humans are put on the earth to have unlimited dominion? (ii) Is it true that almost without exception scholars and leaders of Western Religions (Judaism and Christianity) have taught that humanity should have unlimited dominion over all of creation? These two questions will now be addressed.

While it is true that much exploitation and domination have resulted from teachers within Judaism and Christianity, and on this point White has ample support, this does not mean that all teachers within these religions have supported such action. Nor does it mean that such action has occurred only within Judaism and Christianity. To refute White's hypothesis, let us begin with what the mastery hypothesis writers use of Scripture as a basis for their argument. As stated earlier, White and other proponents of the mastery hypothesis rely heavily on Genesis 1:28 and Psalm 8 for their argument. As was shown earlier, however, if proponents of the mastery hypothesis choose to focus only on a few select verses in Genesis 1 and 2 and Psalm 8, they do a great disservice to the Biblical message as a whole. This is a message of inherent value, mercy, redemption, restoration and renewal, not just for humanity but for the whole of creation. The

Genesis stories do not display the anthropocentrism White believes is essentially there. After each stage of creation God "saw that it was good." Various components of creation are actually listed, for example, the sun, moon, water, birds, fish, animals and vegetation are listed, and after the creation of each the writer tells the reader that "God saw that it was good". All of this takes place, according to this story (and it is this story on which White bases the strength of his argument) before humans were created. The Bible does not say that all these things were good because they would later be of use for humans. They were good as soon as they had been created. They had an inherent value.

The Genesis stories are but one example illustrating this inherent value. Consider as well the story of Job to which reference was also made earlier. In this story Job, the man, is put in his place and God lets it be known that God cares for much outside of humanity. Passages from Isaiah which have been referred to earlier in this work also show the hope for the restoration and peace of all creation. In the New Testament in the Sermon on the Mount, Jesus tells those listening to "look at the birds of the air; they neither sow nor reap nor gather into barns, and yet your heavenly Father feeds them" (Matthew 6:26.). We have already included passages that show the high regard for trees and water. Also consider I Corinthians 8:6: "...yet for us there is one God,

the Father, from whom are all things and for whom we exist, and one Lord, Jesus Christ, through whom are all things and through whom we exist." Again, this passage is about more than humanity. It is about all things and God is their creator.

Then there is the idea of a whole new redeemed creation as described in Revelation and in Colossians. For example, in Revelation 4:11 the Creator is praised for all that has been created, and further on in Revelation 22:2 there is a picture given of the new Jerusalem. In Colossians 1:20 we read "...and through him God was pleased to reconcile to himself all things, whether on earth or in heaven, by making peace through the blood of his cross." Paul's writing in Romans 8:21 "... in hope that the creation itself will be set free from its bondage to decay, and will obtain the freedom of the glory of the children of God" shows a hope for the freeing and redemption of creation. Paul sees all of creation sharing in the liberation and redemption of God.

These passages referred to illustrate that the Biblical writers were not as anthropocentric as White and other proponents of the mastery hypothesis would have us believe. The anthropocentric view is hard pressed for support in a religious tradition that shows all of creation being called upon to praise the Lord (Psalm 98) and also shows a God who is concerned for every "sparrow that falls." In fact the

Christian hope includes all that God has created, and that would include all manners of life and all other parts of creation.

While there are other passages that could be used to refute White's argument, and others have been used throughout this work, those used above will suffice for this part of our discussion. In any of these is found the idea of an inherent value within all of creation. Although humanity is a part of that creation, the other components of it have an intrinsic worth independent of humanity. Many of these passages also show the inter-dependency of each component of creation. This alone would weaken the argument that humanity can and should use nature only for its own benefits.

Regarding the Biblical passages referred to, White, either intentionally or unintentionally, overlooks them. In his attempt to support his argument that in the Judeo-Christian tradition nature has always been seen as a mechanistic force to be dominated by humanity, he has ignored whole passages of Scripture which would indicate otherwise. It is in these passages being referred to that the reader is confronted with a creation that is alive and vibrant, pregnant with energy and full of blessings from God the creator. In these passages creation is not portrayed only in light of its usefulness to humanity; indeed if anything they demonstrate how dependent humanity is on all of creation. These passages

are hardly the material to support an argument that in Judeo-Christian teaching all of creation, other than humanity, is of secondary concern for God. Nor do they support the argument that creation should be of secondary concern for humanity.

Turning aside from direct Scripture passages, the other components that White appears to have missed are the tone and themes present in Scripture. While one can find passages of destruction, devastation and ruthless domination, one cannot find passages in which this is done because God wanted it to occur. It is always the result of idolatry or some other form of "wickedness." The overall tone of Scripture is positive and creative. God's love and mercy are shown through God's creative power, and humanity's love and mercy are shown through its handling of that which God has created. While it is true that sin is the reference point for much of what happens, it is not sin that is the point of concentration. Thematically the Bible focuses on redemption and restoration. God's will is done only when humanity abandons that which displeases God. The Bible is clear that God's will is not of a destructive nature, but creative and renewing, and this is for all of creation. When we consider the predominant tone of Scripture and the predominant themes found therein, it is unfortunate that White would use Judeo-Christian teachings as being at the root of so many of our ecological problems. While there may be some truth in his accusations that certain

religious teachers have used the Bible to support their aggressive attitude towards creation, through errors and omissions he has presented an unbalanced and biased view regarding the portrayal of all of creation as found in the Judeo-Christian Scriptures.

If White had carried out a more extensive study most likely he too would have concluded that Scripture does not teach unlimited domination for humanity; nor does it teach that the rest of creation is outside the realm of God's love and care. In fact quite the opposite is true. Creation, in Scripture, is shown responding to God's love and protection through praise and celebration. For example in Psalm 148:5-12 all of creation are called on to praise God.

The second question (Is it true that almost without exception scholars and leaders of Western Religions have taught that humanity should have unlimited dominion over all of creation?) is not easily answered. It cannot be denied that what has been taught in the name of Judaism and Christianity has not always been true to scriptural teachings. Herein lies the problem, and it is here that persons such as White can make their accusations. There has been much abuse of creation that has gone on under the guise of Judeo-Christian teachings. We have already considered Newton and Bacon. Some of the approaches to nature of our early Christian missionaries can also come under scrutiny. Up to a point, White is correct, in

his conclusions that many of our ecological problems are the result of the teachings of various leaders within Judaism and Christianity. As was pointed out earlier, however, not all Christian followers and leaders have supported the view that creation is there for people to use as they please. John Evelyn, a Latitudinarian churchman, in his work Silva, A Discourse of Forest Trees and the Propagation of Timber in His Majesty's Dominions, written in 1662, stressed the need for sound conservation practices in the forestry, farming and mining industries. He was not alone; there were others, as David Livingstone points out:

Some theologians began to see that, in the Old Testament, animals were regarded as good in and of themselves--not just for their potential service to humanity. John Flavel, a late-seventeenth-century Presbyterian divine, described the horse as his "fellow-creature"; Christopher Smart, the eighteenth century poet, insisted that the beetle's life was "precious in the sight of God"; the Calvinist minister and hymnwriter Augustus Montague Toplady abhorred the digging up of anthills; and John Wesley instructed parents not to let their children cause needless harm to living things--snakes, worms, toads, even flies.¹⁶⁹

Reference can also be made to St. John Chrysostom (c 347-407) who believed that just as the saints had been kind to animals so too should we because all living creatures, including humans, are of the same origin. These are but a few examples

¹⁶⁹David N. Livingstone, "Myth 1 The Church Is to Blame," Christianity Today, (April 4, 1994), p. 25.

of Christians who cast doubt on White's assertions.

There have been persons, however, who for various motives have attempted to make Judeo-Christian literature agree with their own beliefs and conclusions. If one is willing to take Scripture out of context and pick and choose only passages which support a position then it is very easy to defend almost any argument using Scripture. It cannot be denied that this practice has occurred all too often for various reasons by people claiming to be Christian. There have always been those within any religious tradition who for their own material gain or self-advancement have violated, either intentionally or unintentionally, religious principles and as a result have violated creation. These people, however, must not be viewed as exemplifying Judeo-Christian teachings. White has done a great disservice, not only to the Judeo-Christian tradition but also to the ecological crisis, when he generalizes that the teachings by church leaders, with the exception of Francis of Assisi, have all taught and encouraged the condoning of an anthropocentric and dominant approach to creation. Because of what he said much energy has been expended attempting to either defend or refute Judaism and Christianity. This energy could have been better used in attempting to find solutions to the ecological problems. While White has offered some solutions, he has been instrumental in focusing the blame, to a large degree, in the wrong direction and he has suggested

solutions for the ecological crisis that are hardly feasible in the late twentieth century. White's mastery hypothesis lacks justification. He generalizes far too much and makes accusations that cannot be supported either from Scripture or from Christian teaching. Therefore, Christianity should not be expected to carry the burden of guilt for the ecological crisis that White tries to ascribe to it. This is not to suggest, however, that Christianity today need not concern itself with the ecological crisis.

The Way Forward: A Reappraisal of Our Relationship With Nature

In his book The Coming of the Cosmic Christ, Matthew Fox makes reference to Albert Einstein who was once asked, "What is the most important question you can ask in life?" He answered, "Is the universe a friendly place or not?"¹⁷⁰ With creation in crisis, it is imperative that this same question be put to Christians in the second half of the twentieth century as a reappraisal of our relationship with nature is considered. Often in Christian teaching the universe has been viewed and portrayed as the source of evil, a place of

¹⁷⁰Matthew Fox, The Coming of the Cosmic Christ (San Francisco: Harper Collins, 1988), p. 1.

secondary importance in light of the heavenly promise. Often people have been taught that in as much as is possible they should separate themselves from the things of this world and focus on some futuristic kingdom of God. This creates a spiritual/physical dichotomy. The world is seen as being evil while all that pertains to the spiritual is good. The physical world is seen as not being very important because it is really only a transit to the next. Such teaching must be challenged and reassessed.

The belief in the intrinsic value of all of creation and the realization of the connectedness of all things have been reaffirmed. While intellectually we know that all things are interdependent, there is still the danger that we see too much from an anthropocentric perspective. The relationship between humanity and God is often seen as being very important, but all that falls somewhere in between is significantly less important. In some cases this has even been narrowed by some to considering only the importance of individual salvation. The idea being that as long as the individual is "right" with God nothing else really matters. This can result in at best apathy and at worst a blatant destructive approach towards any part of creation that is not human.

While there is no denying that Jesus taught about the coming of God's kingdom and the need to be prepared for it, he also taught a lot about living in the here and now. He taught

how we are to treat other people, and as has been demonstrated in this work, he also taught how we are to regard and treat God's creation. In John's gospel it is written, "for God loved the world so much that He gave his only Son..." (John 3:16). When people read this, they often automatically assume that the passage refers only to humanity. The world, however, consists of more than humanity, and while there is no denying that this passage goes on to emphasize the importance of belief in God, it also says that God loves the world. The world includes all creatures and all of nature. Exodus 3:7 reads, "God said: I have observed the misery of my people who are in Egypt; I have heard their cry on account of their taskmasters. I know their sufferings." That is how the story of Israel's liberation began. God saw and heard the suffering of the people. It is now time that Christians recognized the suffering of creation and whether or not Judeo-Christian teachings in the past have been a part of the cause of that suffering, those who follow the teachings of Christ today certainly have a responsibility to be a part of the solution. The scriptural portrayal of the total creation as being in an interdependent relationship has for too long been overlooked. It is time now for a reconciliation between humanity and the rest of creation. Edward Echlin refers to this as the "cosmic

marriage".¹⁷¹ This marriage includes a responsibility on the part of humans to the entire cosmos. The spiritual element in all that God has created must be considered and an endeavour made to show its people how the entire ecosystem survives because all of life is interrelated. It is only when people fully realize this that they can be expected to show proper respect and reverence for all of the created order. An attitude of respect and reverence is needed. Not only actions and attitudes that are beneficial for the short term and humanity's needs must be taken into consideration, but also their effects on all things over a prolonged period of time must be considered. Such actions and attitudes are being realized more and more as being in the realm spirituality. In After Nature's Revolt, Hessel wrote:

In sharp contrast to modern church and culture, biblical thought poses no either/or choice between caring for people and caring for the earth. Covenant theology emphasizes that the way people treat the land is as important a sign of faithfulness as is the way they treat each other. Therefore, land, rather than being a commodity traded for personal gain, becomes a community trust with appropriate landmarks (Deut. 19:14) to be apportioned equitably (Ezek. 47:13 - 48:29) and to be restored to productive harmony Hos. 2:21f.)¹⁷²

Humanity has been placed in a role of responsibility towards

¹⁷¹Edward Echlin, The Christian Green Heritage: World as Creation (Nottingham: Grove Books Limited, 1990), p. 26.

¹⁷²Dieter T. Hessel, ed., After Nature's Revolt p. 11.

all that has been created. It is not shown as the centre of all creation but as a part of a creation where all things have intrinsic value.¹⁷³

In Romans 8:21, Paul says, "the creation itself will be set free from its bondage to decay and will obtain the freedom of the glory of the children of God." In New Testament understanding the Fall that is referred to includes the fall of all of nature as well as humanity. Nature too needs redemption. Harold Coward writes:

In the Christian view, a special contribution of Jesus Christ was his exposure of nature as having value, not in itself, but only in relation to God's purpose. After the Fall, nature is seen as awaiting the coming of Christ as the manifestation of God's grace, through which nature and humans can be properly understood in relation to God....For the Christian, it is the grace of Christ that enables one to see nature not from the selfish perspective of fallen humanity, but from the perspective of God.¹⁷⁴

In this Coward appears to be in agreement with Foster and his premise that many of our ecological problems stem from the fact that humans fail to see themselves as members of the body of Christ. If they did then they would show a more responsible attitude towards creation. If, as Coward says,

¹⁷³Various other passages have been given throughout this work illustrating this point.

¹⁷⁴Harold Coward, "Religious Responsibility," in Ethics & Climate Change-The Greenhouse Effect, ed. Harold Coward and Thomas Hurka (Waterloo, Ontario: Wilfrid Laurier University Press, 1993), p. 45.

nature has value in relation to God's purpose then surely humanity needs to recognize this.

First, and foremost, God's creation must be seen as endangered and therefore a radical re-examination of Western cultural values is called for. A spirituality that takes all that has been created into consideration must be developed. One that neglects most of creation and focuses only on humanity and its relationship to God can only be seen as an anthropocentric spirituality.

The solution may be to develop a new Christology, one that takes the ecological crisis into consideration. Certainly in many of the New Testament teachings Jesus is portrayed as being linked with all of creation. For example, John 1:3 reads: "All things came into being through him, and without him not one thing came into being." In 1 Corinthians 8:6, Paul writes:

Yet for us there is one God, the Father, from whom are all things and for whom we exist, and one Lord, Jesus Christ, through whom are all things and through whom we exist.

These two Biblical references by way of illustration demonstrate the need for a Christology that includes Christ as liberator and redeemer for all of creation, not just for humankind. This now becomes a spiritual concern. It is only when the caring for creation is seen as being linked with spirituality, and the environmental crisis is seen as a

spiritual crisis, will there be an appropriate attitude towards the wholeness of creation.

In this regard much can be learned from feminine theology and spirituality. The feminine approach to creation is very much one of nurturing. God is portrayed as a nurturing and compassionate being who expects humankind to adopt this same attitude towards all of creation. Feminine theologians are concerned with the usage of language and how the words we use determine our image of God. However, the concern goes beyond the exact terminology being used to the concepts which develop out of it. Most of these theologians have great difficulty when God is portrayed as primarily a male God of power who exerts authority over all creatures of the earth. These images need to be changed. Although God may be all-powerful, there are many other images of God which can be used, and used more effectively, in light of the current ecological crisis. For example, Sallie MaFague in her book Models of God, suggests several models other than an authoritarian powerful deity. She suggests such models as God as Mother, God as Lover, and God as Friend. MaFague supports her concepts from Scripture where God has been portrayed in all of these roles. It is her contention that any model of God that leads to a world where life is viewed as a hierarchy with humans controlling other humans, and humans controlling all things around them, must be discarded. Her suggestion for new models of God does not,

however, totally address the problem and McFague recognizes this. There can be no denying that using any human reference for God will create problems for some people. The real need is to develop concepts or models of God which provide a comfort level and degree of understanding for everyone.

McFague does take it beyond re-naming God. She writes:

I have suggested that a new sensibility is required, one characterized by the felt awareness of our intrinsic interdependence with all that lives, a holistic, evolutionary, ecological vision that overcomes ancient and oppressive dualisms and hierarchies, that encourages change and novelty, and that promotes an ethic of justice and care; one characterized as well by a profound acceptance of human responsibility for the fate of the earth, especially in view of a possible nuclear holocaust, and therefore by the willingness to think differently, to think in metaphors and models that support a unified, interdependent understanding of God-world and human-world relationships; and finally, one characterized by the recognition that although all constructive thought is metaphorical and hence necessarily risky, partial, and uncertain, implying an end to dogmatism and absolutism, it is not thereby fantasy, illusion, or play.¹⁷⁵

With this understanding there is no doubt regarding the obligations of humanity in its relationship with God and all of creation.

Furthermore, it is not enough that Christians sound the alarm that creation is in serious trouble but it must educate its people as to what is a Christian's responsibility in this

¹⁷⁵Sallie McFague, Models of God - Theology for an Ecological Nuclear Age (Philadelphia: Fortress Press, 1987), p. 27.

crisis. If the Bible is to be the basis for discerning Christian responsibility then, as we have argued throughout this work, an accurate interpretation of it is very important. In particular Christians need to be educated in social justice issues. There is a direct correlation between social justice issues and many of the ecological issues. The environmental concern and social justice issues are so intertwined that it is difficult, if not impossible, to separate them. Both the Hebrew Bible and the New Testament teach that love for one's neighbour, especially the underdog, is a requirement of God. In light of the situation today, this love for neighbour is directly related to treatment of the environment. As Harold Coward puts it, "Christians today realize that their neighbour's welfare is strongly affected by the way they treat the environment, including the atmosphere."¹⁷⁶

Rosemary Ruether places great emphasis on the relationship between social justice and the environmental crisis. She writes:

Social domination is the missing link in the question of domination of nature. The environmental crisis is basically insoluble as long as a system of social domination remains intact that allows the owners and decision-makers to maintain high profits for the few by passing on the costs to the many in the form of low wages, high prices, bad working conditions and toxic side

¹⁷⁶Coward, p. 47.

effects of techniques of extraction.¹⁷⁷

It cannot be denied that many Christians have been involved in social justice issues but many more must become involved, and perhaps more involved than ever as large corporations continue to control more and more people in poorer and poorer countries. There is, as far as Ruether is concerned, a correlation between the domination of people and the domination of nature. However, regarding nature domination, humanity is living under an illusion. Ruether writes:

The whole concept of control of nature through top-down dominion is an illusion. There are only two real options, ecological balance or destructive imbalance which creates increasingly uncontrollable morbidity which undermines everyone's survival. This is basically the state that the whole global system of life is moving towards at the present time. At the end, it will be the flies and roaches who will inherit the earth after the four horsemen of famine, pollution, disease and war have been unleashed.¹⁷⁸

This is not a comforting thought and if things are to change Christians must be active in social justice issues around the world.

While there are many social justice issues requiring involvement, for our purposes by way of illustration, we will use only a few. One such issue involves the rainforests of

¹⁷⁷Rosemary Radford Ruether, To Change The World: Christology and Cultural Criticism, (London: SCM Press Ltd, 1981), p. 59.

¹⁷⁸Ruether, p. 67.

Brazil. They are being destroyed, but along with them is also the destruction of the people who live in these forests. This becomes an ecological as well as a social justice issue. Large powerful corporations must be challenged while at the same time a way for the people of Brazil to make a living must be provided.

We can move closer to home with the logging issue in British Columbia where both loggers and native people are at risk, but so too is the ecology of the areas where logging is taking place. Again there is the social justice as well as the environmental concern.

Consider also Newfoundland, where the fishery is in such a crisis that some scientists maintain that it may never recover. There are entire species of fish at risk in this crisis. At risk as well is a whole culture and way of life. Local people, as well as foreign fishery people, must take some responsibility for what is happening.

An attempt must be made to save all species because they are parts of God's creation and have a right to exist without humanity destroying them for its own short-term gain. All are part of the eco-system and when one part is destroyed, either directly or indirectly, all other parts lose something.

Profound changes are required in our lifestyles and these changes will not come easily. In an article entitled "Conversion for Creation's Sake", prepared by the United

Church's Division of Mission in Canada, it says:

God's creation is crying, crying out in anguish. It lies in bondage to principalities and powers who dominate it, ravage it, strangle it. God's creation is in a life and death struggle. The church must call on its people to enter into that struggle for creation, struggle for its life, its health and beauty. But that means that a very different way of thinking about God's creation has to arise among us. Too long we have treated the environment as something "to have dominion over." We now see what "dominion" came to mean: the accelerating extinction of animal and plant life, the dying of lakes, the poisoning of air and earth, the polluting of the oceans.¹⁷⁹

People today must develop a theology that is a part of the solution to the ecological crisis. An attitude of dominance and destruction cannot be a part of that theology.

Considering a Wider Context

If, as scientists tell us, what happens in the next few years will determine the very future of the existence of creation as we know it, and if we believe that God created all things and cares for all things, then there is no denying the responsibility of humans to the saving of the created order. The implications for Christianity are many and severe but Christianity does not and cannot operate in a vacuum. This brings us back to some of the ideas and conclusions reached by White, Cox, Foster and Jaki. The whole question of the

¹⁷⁹"Conversion For Creation's Sake", The United Church of Canada, Division of Mission. p. 10.

ecological crisis needs to be located in a wider context.

This wider context is the role of technology in modern society. We live in an age of technology and humankind would not, and most likely could not, survive without many of the benefits of the technological age. There can be no denying that human life, and in many cases other forms of life, has benefited from the advancements made in technology. However, destruction and exploitation have also resulted from the same. Hence it has become apparent that science and technology cannot operate independent of restraints if creation is to survive. While Cox may be right when he argues that humanity is doing what God requires when it advances in the areas of science and technology, one must agree with Jaki in his recognition of the precarious position in which science and technology have placed the universe. His position that they (science and technology) must be held accountable in the ethical and moral sense for their actions might well be the only way forward in an ecologically sound sense. While science may "provide the tools of constructive endeavours" as Jaki says they must be accompanied by a responsible attitude. Science does not, and cannot, provide norms and goals for humanity. It is Christianity that may be able to provide the necessary controls. How this is to be accomplished could be the focus of another study.

Foster is also quite right when he says that making

nature divine is not a Christian approach but a reverence for nature is appropriate. If humanity lived in such a way that a reverence for all of creation were demonstrated then the ecological crisis would be on the way to recovery.

While this work has refuted White's argument that Christianity should accept the burden of guilt for the ecological crisis, we do agree with Coward when he points out that White has contributed "in helping us to see how biblical views about the human domination of nature, when decontextualized, encourage us to exploit."¹⁸⁰ But we must now move beyond the specific question which White raised. It is not sufficient either to blame Judeo-Christian teaching or focus only on it in the discussion of the ecological crisis. Research shows that such blame does not prove true when we consider the same problems being experienced in areas of the world where Judaism or Christianity have had very little influence, for example, Japan or India. It becomes increasingly clear that by nature humans are aggressive. Without any ethical guidelines they exploit. Coward says:

In both the East and the West the environment has been ruthlessly exploited ... it is our innate aggressiveness as *Homo sapiens*, inherited from prehuman savanna primates, that is at the root of the problem.¹⁸¹

¹⁸⁰Coward, pp. 59-60.

¹⁸¹Coward, p. 59.

The solution to the problem is not simple. However, each of the mastery writers examined in this work related the problem or the solution to religion, in particular to Judeo-Christian teaching. Foster and Jaki are in agreement that humanity has lost its sense of aim or direction and science, while good, is running out of control. Foster and Jaki offer a theological solution to the problem. When people recognize that they are members of the body of Christ and that God is in all things, then humanity will act in a responsible manner towards all that God has created. Only when humanity lives in such a way that it shows a caring for the earth, and all its creatures, and all the rest of creation will God's will truly be done on earth. The traditional scriptural interpretations and traditional theological teachings which portray humanity as being in a position to use any aspect of creation as it chooses must be challenged and changed. Such an approach is no longer appropriate, especially from a Christian perspective. If Christians really believe that God is love and God cares for all that has been created, then the acceptance of the dominance by humanity over the rest of creation must not be a part of its teaching. The emphasis must be on the integral value of all that has been created by a God of love.

The way forward, or the next step in the discussion, is to investigate how technology affects our relationship with

the natural world. This is a much bigger question when we conclude that there can be no separation between our advancements in technology and how these affect our relationship with creation. Echlin puts it well when he says:

The problem is that modern men and women, impressed by modern technology, often divide the earth into two categories - people and resources for people's benefits. Our fellow creatures are regarded not as inherently precious in themselves, but as such resources for human consumption. These creatures, moreover, are widely regarded as inexhaustible, in what is called 'the infinite resources illusion'.¹⁸²

In addressing the question raised not only creatures of nature need to be considered but the whole of creation has to be included. Foster, Cox and Jaki have pointed the way forward by giving us a wider context in which to consider our relatedness with all of nature and how that is affected as we move forward in technology. This would be a logical next step in the discussion of humanity's place or role in God's creation.

¹⁸²Edward Echlin, "The Earth as a Created Community", Christians In Public Life Programme, Position Paper C17 Series Two (Westhill College, Birmingham, Nov. 1994), p. 1.

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