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Man's Dominion and the Judaeo-Christian Heritage

In this chapter I shall consider the theory that the source of our ecological problems is to be found in the Judaeo-Christian belief that mankind was created to have dominion over nature, a belief which, according to the theory, can be interpreted as implying that humans may treat their natural environment as they like. This theory has to confront the objection that ideas cannot have such a causal efficacy, and also seems to imply that the attitude to nature of the medieval West was improperly exploitative: having considered these difficulties, the second of which I claim to have substance, I proceed to consider whether the theory correctly interprets the Biblical belief in man's dominion, or whether the Old and New Testaments embody, on the contrary, the makings of a much gentler and more enlightened attitude to nature. In the next chapter I consider the evidence for these various attitudes from subsequent Christian history, and in the following chapter I survey the significance for these matters of Judaeo-Christian beliefs about the nature of man. These chapters prepare the way for the presentation of a moral theory in later chapters, as well as throwing light on the resources of Western traditions for coping with ecological problems, which I claim to be much ampler than is usually supposed.

Religion as the source of the problems

What Lynn White calls 'the historical roots of our ecological crisis' are held by him (in an essay with the phrase just quoted as title¹) to be located in the Judaic and Christian doctrine of creation. More specifically they lie in the belief that man was made in God's image and shares in God's transcendence of nature, and that the whole
natural order was created for the sake of humanity. In the more recent past the roots of the crisis may be detected in the alliance of science and technology, only finally cemented in the nineteenth century; but the beliefs implicit in Genesis, or rather in the activist, Western interpretation of Genesis, underlie those distinctive products of the West, science and technology.

Well before the rise of modern science in the sixteenth and seventeenth centuries the medieval West was technologically far ahead of the other cultures of the day, uninhibitedly harnessing natural forces for human ends: moreover this characteristically Western phenomenon was no accident, but embodied the very beliefs newly accepted when paganism was overcome by Christianity. In place of the respect for the guardian spirits of groves, streams and hills afforded by pagan animism, 'Christianity made it possible to exploit nature in a mood of indifference to the feelings of natural objects'. Indeed 'the spirits in natural objects, which formerly had protected nature from man, evaporated . . . and the old inhibitions to the exploitation of nature crumbled'. Such being their roots, science and technology are unfit to solve our current problems; rather the remedy must lie in religion, and we should either replace Christianity, the root cause of the problems, with a new religion such as Zen Buddhism, or, failing that, modify it by adopting the pan-psychism of St Francis, according to which all creatures, whether animate or inanimate, have souls and are designed for the glorification of their Creator.

White's paper has, as Passmore observes, exercised widespread influence, partly because of the delayed but increasing impact of Aldo Leopold's call for a new ethic, an ethic still, in his view, lacking in the West, governing man's relation to the land and the whole biotic community associated with it. In particular, White's view that technology, the immediate cause of some of our ecological problems, cannot be expected to solve them alone, commands wide agreement, but there is less agreement about the nature and extent of the other social and moral changes required. More specifically his theory about the religious source of our problems and the corresponding need for a religious remedy has been challenged, not only over his theological interpretations, but also over his historical method.

One possible objection in the area of historical method is that it is fallacious to locate the causes of a phenomenon in its origins, for attitudes, like institutions, may be perpetuated for reasons quite other than those which originated them. Thus it would be a fallacy
to represent as the cause of our largely post-1945 ecological problems such ancient Hebrew beliefs as may have originated the Western attitude to nature. This objection, however, has no force, for White can document the persistence of similar beliefs (how similar remains to be seen) among patristic and medieval writers and among more recent scientists, and a concomitant activist attitude to the natural environment. It is certainly odd that the same attitude also pervades a post-Christian age, and also societies such as that of Japan which have never been significantly Christian: but this could be because in the former case there has been no motive for a change of belief about the superiority and the dominance of man, and because in the latter case such was the prestige of Western technology that beliefs such as these could be imported with little or no resistance. White is thus immune from the fallacy of origins.

A more serious charge, however, concerns the extent of his reliance on ideas to explain social phenomena. 'It is difficult,' writes F. B. Welbourn, to give so much primacy to the causal efficacy of ideas.' Welbourn's own view is that the function of ideas in history is to legitimize actions and institutions which are to be explained by more material considerations: thus new-found technological power may have been justified after the event by 'suitably selected and interpreted ideas'. Now, it should certainly be granted that religious ideas are often pressed into service as justifications of social and technological developments. Nevertheless I should wish, with White, to question whether either modern science or modern technology can be explained solely by the structure of society or by economic forces and without reference to belief in an orderly creation and in the propriety of using and moulding it for human benefit.

The connection between science and the doctrine of creation is a close one, as I have argued elsewhere: belief in creation implies the possibility of natural science and belief in man's dominion implies that its pursuit is, for some at least, a humanitarian duty. These implications of central Christian doctrines were, admittedly, neglected (but not universally disregarded) for many centuries, but the connection was explicitly argued in the early seventeenth century by Francis Bacon, and later that century the central features of his method were adopted by the Royal Society. Two hundred years later, and against the background of the same beliefs, science began to be applied systematically to technology and medicine, and the Baconian programme began to be fully realised (but without some of the safeguards which Bacon would have favoured); and, although belief in Christianity has waned, belief in the propriety of harnessing
natural forces for human benefit has not.

There is also the problem of explaining, on Welbourn's view, why the growth of technology has been so specifically a Western phenomenon, if characteristic Western beliefs and attitudes are not to be invoked. Science and technology elsewhere, as Stanley L. Jaki and White himself have shown, either failed to develop despite promising beginnings, or were directed to devotional and spiritual purposes. Thus, short of some other explanation of the distinctive progress of technology in the West, ideas may play an indispensable role in the explanation of this (and other) social and historical developments, even if they seldom constitute sufficient conditions alone. Accordingly White's theory is not to be rejected on grounds of historical method or of historical materialism: indeed the invocation of traditional ethical and religious attitudes may do much to illuminate ecological problems and the principles required for their solution.

Nevertheless reservations need to be expressed about those passages in which White elicits from his discoveries about medieval technology the attitudes to nature which they bespeak. Remarking on the invention of the eight-oxen plough in Northern Europe in the seventh century and the changes which it brought to agricultural practice, he claims that a crucial change in man's relation and attitude to the soil took place therewith; 'once man had been part of nature; now he became her exploiter'. A similar tone pervades his remarks on the Carolingian calendars of shortly before AD 830, wherein 'passive personifications' of the months were replaced by scenes of 'ploughing, harvesting, wood-chopping, people knocking down acorns for pigs, pig-slaughtering'. Of this change White observes: 'They show a coercive attitude to natural resources ... Man and nature are now two things, and man is master.'

These comments betray an exaggerated view of the moral and metaphysical significance of new ploughs and new calendars. It is beyond my present scope to question White's conclusions about the social changes which accompanied the introduction of the new plough. But if his comments on their significance are taken seriously it should be inferred that until around AD 800 people in the West regarded themselves as no different from the rest of nature, despite the conflicting account of their Christian beliefs presented by White himself, and that thereafter a grasping, coercive and improper attitude prevailed towards natural organisms, minerals and wilderness. The passages in White's book in which this interpretation is put forward are isolated and untypical ones, and
the facts which White presents simply will not bear such an interpretation. Moreover, if an exploitative attitude to nature is fully embodied in heavy ploughing, wood-chopping and acorn gathering, just as much as in the heedless pollution of rivers by mercury compounds and of the atmosphere by strontium 90, it must be asked whether White is concerned about the same attitude to nature as, for example, Barry Commoner, and whether what he is concerned about is really exploitative at all.

White presents no further arguments for the view that these changes embody an improperly exploitative view, yet there seems to be no alternative interpretation of his remarks. (He cannot merely be remarking that man began at that time to exploit nature, in the non-pejorative sense of 'exploit', for on his own account such mere use of nature had been current for centuries.) But if the new uses to which nature was put in North-West Europe around AD 800 constitute (improper) exploitation, so, it would seem, must all the other ingenious contrivances of medieval technology which White proceeds to describe with such care and apparent admiration. If so, it is difficult to understand his attitude to his own subject-matter as a historian. The belief that gunpowder might best have been left alone would be understandable, but does White really hold the same about the power of wind and water, the three-field rotation system, and the nutritive powers of broad beans and chickpeas? If not, he may still persuade us that people in North-West Europe in the ninth century were more ready to mould nature for human advantage than those elsewhere, but he cannot persuade us that the changes they made in this direction were for the most part regrettable. Indeed if such developments are what a new religion is required to curtail or prevent, then White seems to have mischaracterized what is needed.

Old Testament attitudes

It is now appropriate to ask whether, as Passmore and Welbourn claim, White has mischaracterized the Old Testament also, and with it at least the roots of the belief which he considers to underly our ecological problems. According to Genesis, God created mankind to have 'dominion over the fish of the sea, and over the fowl of the air, and over the earth and over every creeping thing that creepeth upon the earth', and authorized man to 'Be fruitful and multiply and replenish the earth and subdue it'. White's comment is 'God planned all of this [his creation] explicitly for man's benefit and
rule: no item in the physical creation has any purpose save to serve man’s purposes.’ To what extent will the Old Testament bear this interpretation?

It is generally agreed that on the Old Testament view nature is not sacred. The Creator and his creation are radically distinct, it is idolatrous to worship the latter, and so there is nothing sacrilegious in treating creatures as resources for human benefit. Indeed the passages about man’s dominion authorize just that, within certain limits. On the other hand the belief that nature may properly be used by mankind does not, as Passmore points out, justify an irresponsible attitude to nature. At most it removes one possible inhibition to such an attitude: but this inhibition is surely an undesirable one, at least if alternatives can serve instead. For belief in the sacredness of nature makes medical and scientific research not only wrong but actually impious, and this ban would include the science of ecology itself. Against such a view Christian defenders of science such as Boyle have quite properly appealed to the Bible, as Passmore reminds us. The possibility of alternative inhibitions is already implicit in Genesis 1, which authorizes exclusively a vegetarian diet. Only after the Fall and the Flood were human beings authorized to eat flesh, as if the society which transmitted and edited the Genesis narratives was uneasy about meat-eating and sensed that a special justification was needed.

Though the Old Testament eventually allowed flesh to be used for human food, the Laws of Leviticus and Deuteronomy in fact set considerable limits to human dealings with nature, affecting, for example, the treatment of fruit-trees, oxen, mother birds and fallow land. Similarly the Book of Proverbs declares that ‘A righteous man regardeth the life of his beast.’ Nor, as Welbourn points out, is pagan animism the only form of religion to have imposed restraints on people’s treatment of plants and animals; indeed monotheistic religions have a similar capacity, as he ably shows. Thus White’s remarks that according to Christianity God intends man to exploit nature ‘for his proper ends’ and that with the Christian defeat of paganism ‘the old inhibitions to the exploitation of nature crumbled’ are at best misleading, insofar as Christians have not forgotten the Old Testament. (White cannot be taken as limiting the divine mandate to man’s morally ‘proper ends’, as it is supposed to constitute the pernicious root of our ecological problems, rather than merely to authorize behaviour which is morally justified.) The point can be taken further if White’s claim that the Old Testament represents nature as being created solely for man is
considered. As soon as this claim is examined, it collapses. In Genesis 1, plants are intended as food for beasts, fowls and reptiles as much as for mankind; and after the Flood all these kinds of creatures are alike instructed to breed and be fruitful. In Job, God is said to send rain for the plants and the uninhabited wilderness (38:25ff), and to have made the wilderness for the wild ass (39:5ff). Still more impressively, Psalm 104 catalogues God’s concern for nature and all creatures, among which man figures no more prominently than the birds and the wild beasts. Passmore indeed traces the belief that everything was made for man not to the Old Testament but to Stoic and earlier Greek sources, from which it seems to have been derived by the third century Christian Origen; as we shall see, the influence of Stoicism in this regard did not prevail over that of the Old Testament to anything like the extent which Passmore supposes.

The truth seems to be that the tradition which holds that in God’s eyes the nonhuman creation has no value except its instrumental value for mankind has Greek rather than Hebrew sources, and is only one, and not the only (or even, perhaps, the predominant) view of the value of creatures of other kinds to have been held by Christians: not, as White calls it, ‘orthodox Christian arrogance’. Indeed even to call it ‘Greco-Christian arrogance’, as Passmore thinks may be in order, is to go beyond the evidence, as most ancient Greeks and many (perhaps most) Christians have held no such view (see chapter 3). Moreover, since Christians familiar with the Old Testament would assume that in God’s eyes various creatures other than humans are of intrinsic value, White must be mistaken in holding that according to Christianity in general man is intended to regard nature as raw material for his own ends alone.

Views such as White’s about the supposed Judaeo-Christian origins of belief in the duality of man and nature and in perpetual progress receive some discussion in chapters 4 and 5. Here it remains to consider how far the biblical belief in mankind’s dominion is even compatible with the view of man as despot which Passmore regards as the dominant Western tradition, though one only put into practical effect in a thorough-going manner since the time of Bacon and Descartes. For, though he subjects White’s theory to considerable qualification, Passmore holds that the Old Testament leaves open the possibility of an attitude of absolute despotism towards nature on the part of mankind: and he believes that this ability has actually occupied the centre of the stage till recently within Christianity. I shall claim in reply that the despotic attitude
is a possible interpretation of the Old Testament only by means of selective quotation and disregard for Hebrew thought.

The interpretation of belief in mankind's dominion as involving man as steward or bailiff of creation, charged by God with responsibility for its care, is claimed by Passmore to be largely a recent view, and to have originated (at least among Christians) in the seventeenth century.\(^{27}\) If he is right, then the predominant Christian belief has been that, except for practices specifically forbidden by God, people are entitled to deal with nature without further limitations and in whatever way they please, like an absolutist prince of the Holy Roman Empire subject only to the largely theoretical constraints of the Emperor.

But the biblical dominion of man is no despotism. If Genesis authorizes mankind to rule nature, it authorizes only the kind of rule compatible with the Hebrew concept of monarchy: and, though the Hebrews were aware of other nations having absolute monarchs, their own kings were never so regarded. Rather they were considered to be answerable to God for the well-being of the realm,\(^ {28}\) and if they failed in their responsibilities, God would send a prophet to anoint another. The attitude ascribed to David at I Chronicles 29:11—14\(^ {29}\) epitomizes that proper to a king; David there attributes all power to God, and acknowledges before God that he and his people cannot even offer up gifts which have not first, like everything else, been bestowed through God's grace. Not surprisingly kings often deviated from the spirit of this humble prayer; but what is at stake is the characteristic Hebrew concept of kingship and dominion, not the practice of all who implicitly accepted the ideals implicit in it. Nor was it only kingship which the Hebrews expected to be exercised responsibly: the same view was taken of the ordinary ownership of property.\(^ {30}\)

John Black derives from Genesis 2:15 a more direct argument for the view that man's dominion was interpreted as the responsible exercise of a circumscribed trust or mandate, and not as despotism. The second or Yahwist account of the creation there relates that 'the Lord God took the man, and put him into the garden to dress it and keep it'.\(^ {31}\) Black interprets 'dress' as meaning to 'till' for both pleasure and profit, and 'keep' as 'protect from harm'. Thus man is put into the world to look after it for God, and, as Black points out, to preserve it as a source of pleasure, and not only as good for food (Genesis 2:9). Passmore\(^ {32}\) considers this authorization to have been superseded by man's expulsion from the garden, which was cursed for his sake; yet the original mandate of dominion, conferred before
the Fall, was repeated after it, and the new circumstances then arising can scarcely have been understood to have disburdened humanity of all prior obligations, or to have granted people the privilege of acting as they liked. Living by the sweat of one's brow need not involve the exploitation of nature, as we have seen in connection with heavy ploughing in the seventh century.

Thus, as C. J. Glacken remarks about the belief in man's dominion expressed in Psalm 8, once the background of the Old Testament is understood, the words are much less amenable to being interpreted as arrogant than they may at first glance appear. On the contrary, Glacken, unlike Passmore, is inclined to the conclusion that in the Bible man was 'a steward of God'. In any case the evidence cited above makes it clear that the Old Testament cannot be reconciled with either the anthropocentric view that everything was made for mankind or the despotic view that people are free to treat nature and nonhuman creatures as they please. Moreover for the writers of the New Testament the Old Testament precisely constituted the Scriptures; any Old Testament tenet not explicitly superseded in the new dispensation was for them authoritative. (Admittedly Christians were released in the New Testament from subservience to the details of the Law of Leviticus and Deuteronomy: yet these books themselves continued to be cited as Scriptural.) Thus, short of clear indications to the contrary, the New Testament position will have been identical over the matters under discussion with that of the Old, a position incompatible with the arrogant one ascribed to Christianity by Passmore and others.

**New Testament attitudes**

In actual fact Jesus, as Passmore grants, stood in the Old Testament tradition when he taught that God cares for sparrows (Matthew 10:29, Luke 12:6). Here, and also when Jesus talked of 'the lilies of the field' (Matthew 7:28—30), the emphasis is on the greater value of people; yet the words chosen about the lilies suggest that God takes delight even in plants, and that their value is an independent one.

Consider the lilies of the field, how they grow; they toil not, neither do they spin: And yet I say unto you, That even Solomon in all his glory was not arrayed like one of these. Wherefore, if God so clothe the grass of the field, which to day is, and to morrow is cast into the oven, shall he not much more clothe you, o ye of little faith.
Earlier (Mark 1:12f), Jesus spent 40 days in the wilderness in the company of wild beasts; and several times he asked his disciples to sail to the other side of the Lake of Galilee to have solitude and escape the multitude (Mark 4:35; 6:45; 8:13). These passages suggest that he regarded nature not only as a resource but also as an asylum and a source of renewal, just as the passage about the lilies suggests that he appreciated natural beauty.

As to the treatment of animals, Passmore believes that his concern was solely for the preservation of human property.

... the other familiar Old Testament prohibitions (against cruelty to animals) ... sometimes rest on the fact that asses and oxen were a valuable form of property, just as when Luke reports Jesus as asking the Jews 'Which of you shall have an ass or an ox fallen into a pit and will not straightway pull him out on the Sabbath day?'

But this is to beg the question about Jesus' attitude to animals, and, come to that, about the attitude of the Old Testament writers also. The human interest in domestic animals was obviously one reason for protecting them, but it need not have been the only one. Indeed in the Parable of the Lost Sheep (Luke 15:4—7) the marginal benefit of retrieving the hundredth sheep was, all things considered, slight if not negative, but the shepherd still recovered the beast: and, though it is impermissible to argue unrestrictedly from the actors within a parable to the intention of the teller, yet in this case the explicit comparison of the shepherd's care for the sheep to God's loving concern for sinners suggests that we can take it that Jesus was endorsing the shepherd's attitude. Thus Jesus understood and sympathized with disinterested care of animals. Indeed the Johannine Jesus declares (John 10:11) that the good shepherd, by contrast with the hireling, actually lays down his life for the sheep (a passage which, whether historical or not, must have influenced its readers' attitudes to actual flocks as well as to the pastoral care of Christ for his followers).

The only evidence for his holding a despotic view consists in the narratives of his reported treatment of the Gadarene swine (Matthew 8:28—34; Mark 5:1—20; Luke 8:26—39) and of the barren fig-tree (Mark 11:13f, 20—4). Certainly these passages were later used, as by Augustine, as dominical authority for ruthlessness towards animals and plants.

Christ Himself shows that to refrain from the killing of animals and the
destroying of plants is the height of superstition for, judging that there are no common rights between us and the beasts and trees, he sent the devils into a herd of swine and with a curse withered the tree on which he found no fruit.\textsuperscript{37}

But this passage tells us more about Augustine (whose other views, however, belie his remarks here — see chapter 3) and his polemical powers in castigating his former associates, the Manichaeans, than they do about Jesus. It is peculiarly hard to know how to interpret passages relating nature-miracles; but in these two cases I commend the view of Stephen Clark about the pigs: ‘I suspect that there is a parable lurking behind the trivia (who, after all, was keeping pigs?)’\textsuperscript{38}

In the case of the fig-tree, we actually have a version at Luke 13:6—9 of a parable which could easily have been transformed into the Markan narrative. (Similar changes of stories told by Jesus into stories about Jesus seem to be present between the Parable of Dives and Lazarus (Luke 16:19—31) and the raising of Lazarus (John 11:1—44), and between parables about wedding feasts, wedding guests and new wine (Matthew 22:1—14; 25:1—13; Mark 2:19—22) and the miracle performed at Cana in Galilee (John 2:1—11).) Similarly the symbolic significance of swine could well betoken a parable underlying the story about the pigs presented in the three synoptic gospels; which will, if so, have accidentally given the impression of dominical authority for attitudes which, for all that we can tell, Jesus himself would not have shared.

Where attitudes to nature are concerned, the New Testament departed from the Old over its eventual annulment of the distinction between clean and unclean animals (Acts 10, 11), and over its abolition of animal sacrifices in a passage (Hebrews 10:1—18) which speaks with evident distaste of the idea of sins being taken away by ‘the blood of bulls and goats’. There is also Paul’s stray question implying that God does not care for oxen (I Corinthians 9:10f). Yet when Paul was actually focusing his attention on the subject of nonhuman creatures, rather than delving for the symbolism behind Scriptural proverbs, he held that every creature was in travail awaiting release from decay and participation in the liberty of the sons of God (Romans 8:21f). Passmore indeed allows that Paul intends here that both human and nonhuman creatures are waiting on God,\textsuperscript{39} and therefore can hardly ascribe to him nothing but an instrumental attitude to the nonhuman creation. Indeed in another epistle the whole of creation is presented as caught up in the drama of salvation (Colossians 1:15—20). The same broad vision, moreover,
is present in Revelation, where the tree of life (22:2) symbolizes the final restoration of the original tree of life of Genesis 2:9, and with it a restoration of the original Garden.

These and other passages altogether preclude a despotic reading of the New Testament; nor is it defensible to hold that the New Testament view of the nonhuman creation was discontinuous (except momentarily) with that of the Old. Even if the stewardship of vineyards and the tending of flocks symbolizes in the New Testament care for the Church rather than for the earth, as Passmore maintains,\textsuperscript{40} the benign understanding of nature required by the symbolism must have reinforced the gentle and responsible attitudes to nature which the Old Testament was known to urge.

Passmore for his part sums up the Christian attitude to nature as follows:\textsuperscript{41}

What can properly be argued, however, is that Christianity encouraged certain special attitudes to nature: that it exists primarily as a resource rather than as something to be contemplated with enjoyment, that man has the \textit{right} to use it as he will, that it is not sacred, that man's relationships with it are not governed by moral principles.

About the third of these attitudes (that nature is not sacred), and it alone, I should agree with Passmore's ascription, though even here it is appropriate to remark that all terrestrial and celestial bodies are said at I Corinthians 15:40 to have a glory of their own. The remaining attitudes are, as we have seen, foreign to the Christianity of the Bible. Genesis, the Book of Psalms, Job and the gospels bespeak an awareness of nature's beauty; and the awareness, present in both the Old and the New Testament, of the independent value of nonhuman creatures implies constraints upon the treatment of such creatures at least as far-reaching as those which the Old Testament makes explicit. Mankind's dominion is responsible to God, who regards all creation as very good (Genesis 1), and it is entirely mistaken to read into this recognition of the power with which human moral agents are entrusted an absence of moral constraints in its exercise. God is concerned in the Bible with the well-being of other creatures besides mankind (Psalm 104), and people accordingly have obligations to care for nature and not to subvert its integrity by subordinating it ruthlessly to their own purposes. Though the Bible does not set out these obligations in the form of principles, it nevertheless precludes the despotic and anthropocentric attitudes
which White and Passmore alike consider its most natural interpretation; indeed it may well be held to contain, explicitly or implicitly, many of the ingredients necessary for a responsible environmental ethic.

NOTES

2 Ibid. pp. 11f.
3 MRN, p. 5.
6 Ibid. p. 562.
7 Robin Attfield, God and The Secular: A Philosophical Assessment of Secular Reasoning from Bacon to Kant, Cardiff: University College Cardiff Press, 1978, chapter 1.
10 At pp. 56f of White's book, replicated closely at p. 9 of his article.
11 But White's methods and findings have been severely criticized by R. H. Hilton and P. H. Sawyer in Past and Present, 24, April 1963, 90—100.
12 The Environmental Handbook, pp. 10f.
14 Genesis 1:28.
16 MRN, p. 11.
17 MRN, p. 6.
18 Welbourn, 'Man's Dominion', p. 564.
19 The Environmental Handbook, p. 11.
20 Ibid. p. 12.
22 MRN, p. 16.
23 Thus C. J. Glacken, Traces on the Rhodian Shore, Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth

24 Thus White, The Environmental Handbook, p. 16.


27 MRN, pp. 29f. At p. 185 he holds that its fullest implications were only first seen by Kant.


29 Cited by Thomas Sieger Derr, Ecology and Human Liberation, p. 73.

30 Ibid. p. 70.


32 MRN, p. 31. Cf. Westermann, Creation, p. 82, whose account I follow.


34 Glacken, Traces on the Rhodian Shore, p. 168.


37 Quoted ibid. p. 197.


40 MRN, p. 29.

41 MRN, p. 20.