CHRISTIAN ATTITUDES TO NATURE

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The roots of our ecological problems are often set down these days to the Judaeo-Christian tradition, and Christian attitudes to nature are often held to perpetuate these problems. There is some evidence for these views, but there is also much more evidence than is usually acknowledged for other, more beneficent Christian attitudes to the environment and to nonhuman nature; from this complex picture the adverse interpretation of Christian attitudes is at times derived by such methods as the selective use of evidence and the exaggeration of the significance of some of the evidence selected. At the same time the evidence for gentler attitudes is underplayed. There is some justification for highlighting what needs to be rejected if our attitudes are to be wholesome ones; but if the attitudes commended are in fact central within the Christian tradition, then disparaging it will not only distort the historical record but also unnecessarily forfeit resources by which these attitudes could be supported. Before turning to the evidence, I shall first summarize the positions of three critics of Christian attitudes, John Passmore, William Coleman, and, first of all, the writer whose account they each criticize and modify (and in some degree follow), Lynn White, Jr.1

I. According to Lynn White’s widely republished essay “The Roots of Our Ecological Crisis,” these roots lie in the Judaeo-Christian belief that man, being made in God’s image, is set apart

from nature, and that the entire physical creation was brought into being for human benefit and rule. The immediate roots of the crisis are to be found in the nineteenth-century coalition of science and technology, but both science and technology reflect the most influential interpretation of the tradition inherited by the Western world from Genesis, and adopted long before the age of Copernicus, Galileo, and Newton. Centuries earlier than this the medieval West far outstripped contemporary civilizations in technology, ruthlessly exploiting natural forces for human ends; and this distinctively occidental posture was no historical accident, but reflected the characteristic beliefs adopted in the West through the victory of Christianity over paganism. Pagan animism involved respect for the guardian spirits of trees, streams, and hills; Christianity allowed its adherents to disregard the feelings of natural objects, and with Christianity “the old inhibitions to the exploitation of nature crumbled.” Accordingly, we cannot solve our problems by more science and technology; we must get to the root of them and either replace the lingering attitudes of Christianity with those of Zen Buddhism, or, if that proves not to be viable, adopt the heretical views of St. Francis, believer in panpsychism and the democracy of all God’s creatures.

As will be seen, White overdramatizes the change of the human role vis-à-vis nature introduced by Christianity. Thus in his illuminating study of medieval technology he comments as follows on the invention, in seventh-century northern Europe, of the eight-oxen plough complete with horizontal share and mouldboard, and the possible concomitant changes in distribution of land and crops: “No more fundamental change in the idea of man’s relation to the soil can be imagined: once man had been part of nature; now he became her exploiter.” This isolated and staccato comment seems to assimilate heavy ploughing to the targets of contemporary ecological concern such as nuclear fallout, defoliation or the destruction of the Amazonian rain-forest; before his readers see it like this, he must persuade them first that it was at any rate reprehensible. Can this be what a new religion is required to curtail? Indeed White’s tendency to exaggerate has also been criticized by fellow-historians in the matter of his assessment of the social impact of technological innovations.

Now Passmore rejects White’s view that the Old Testament must be interpreted as exploitative, though he holds that it does not prescribe despotic attitudes, and that its laws requiring various forms of consideration for animals are either responses to heathen rituals or motivated by concern for property. But Paul discarded such concern

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2 White, 12.


for animals as the Old Testament had shown, and soon the biblical belief in the human dominion over nature became allied to the Stoic belief that the irrational existed for the sake of the rational, and that people could do with nonhuman nature as they pleased without moral constraint. This attitude of "Greco-Christian arrogance" became the official position of Christianity down to recent times, though it was not systematically acted on until the modern scientific movement initiated by Bacon and Descartes. Passmore acknowledges that belief in human dominion can be taken not as despotic but as implying that humanity, as the steward or bailiff of God's creation, has responsibility for its care. But, though he finds this view of man's role in Plato's *Phaedrus* and in Iamblichus, he holds that it was not held among Christians before Sir Matthew Hale in the seventeenth century, and was held only occasionally until it became a widespread view in the last few years. Another minority tradition, on which man is to cooperate with nature to perfect it by realizing its potentialities, is traced to the ancient Hermetic writings and then among the German Romantics such as Fichte, as if it were foreign to most of the centuries in between.

Nevertheless the existence of these minority traditions shows that there already exist within Western traditions the "seeds" of a more responsible attitude to nature than the Greco-Christian one. Just as it has become accepted during the nineteenth and twentieth centuries that cruelty to animals and indifference to animal suffering is wrong, so there is scope for the development of a revised attitude to the natural world as a whole, in which the survival of no species is regarded as metaphysically guaranteed, the interdependence of species is accepted, and care is taken to avoid the despoliation of nature through the unforeseen side effects of human action. At the same time the Biblical denial that nature is sacred is endorsed, belief in the rights of animals is rejected, the value of science and technology is reaffirmed, and the preservation of human civilization is presented as morally central. By contrast with the passivity of oriental religion, the active interventions favored by the "stewardship" tradition aimed at preserving natural beauty or alleviating ecological problems are commended, though probably not all adherents of that tradition would be satisfied by the limited extent of Passmore's concern for people of more than a century hence or for preservation of wildlife and wilderness. Passmore's more recent writings, in fact, seem to call for many more revisions in the areas of ethics and metaphysics than does his book, but the above account reflects his overall published position.

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despite his changes of emphasis. It is also perhaps appropriate to mention at this stage his high regard for the stimulation to be derived from the "vast storehouse of learning" in one particular book singled out for attention in his Preface: C.J. Glacken's *Traces on the Rhodian Shore*.  

Coleman for his part concurs to some degree with the critique of White's position supplied by Lewis W. Moncrief. Moncrief points out that environmental stress is not peculiar to Christian cultures, and holds that even if religious beliefs have contributed to the problems, their influence will have been indirect, and is no better evidenced than the ties between Christianity and capitalism. Moncrief largely rejects White's thesis as it concerns the medieval period, and Coleman, despite a greater sympathy with White, grants much of Moncrief's case here and also on the need to recognize a multiplicity of factors contributing to the despoliation of nature. But Coleman also claims that a form of Christian apologetics (developing from the end of the seventeenth century onwards) in which one of the evidences of providence was the endowment of some men with predispositions to manufacture and trade, constituted a blessing on capitalist enterprise; and that the writings of the theologian principally concerned, William Derham, provided just the kind of empirical basis which Moncrief had found wanting for the link between Christianity and the more direct causes of ecological stress.

Thus the contribution of Christianity to our worldwide ecological problems was a significant one, but Coleman has located it some millennia later than White had. I shall return to these and kindred matters concerning Christian attitudes to nature in the early modern period after reviewing the biblical evidence and the evidence from the patristic and medieval periods as it is relevant to the positions of White and Passmore.

II. As Passmore has acknowledged in "Attitudes to Nature," it is not the position of the Old Testament that everything exists to serve

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humanity, and White is mistaken to suggest otherwise. Thus the valleys are said to be watered for the sake of wild beasts (Psalm 104: 10f.), and the same Psalm expresses God’s care for a great variety of wild creatures. Similarly the uninhabited wilderness is given rain to support the plants (Job 38: 26f.) Passages such as Psalm 148 and Psalm 104: 24, which express admiration of God’s handiwork and the praise in which all his creatures join, cast doubt on Passmore’s claim that, to Christianity, nature “exists primarily as a resource rather than as something to be contemplated with enjoyment.”9 White and Passmore are correct to point out that in the Bible nature is not sacred, and that this attitude later allowed Christians to experiment on it in order to investigate its secrets; yet F.B. Welbourn10 is also correct in denying that nature is, to the biblical writers, “unsacrosanct raw material.” Not only does God find “everything that he had made . . . very good” (Genesis 1: 31), but according to Deutero-Isaiah (Isaiah 41: 17–20) God desires alongside the restoration of Israel that of nature’s beauty and fertility.

The biblical belief in man’s dominion over nature must not be interpreted as if these passages did not exist. In Genesis 1 only a vegetarian diet was authorized (vv. 29f.), and even when meat-eating was sanctioned (Genesis 9: 2f.), man’s dominion, as Glacken points out (157), was probably seen as applying simply to meat-eating and to the domestication of animals. At any rate Welbourn is justified in observing, against White, that a large variety of religions besides animism have set limits to the permissible treatment of trees and animals (562), and that the religion of the Old Testament is among them (564). Indeed, in the light of a whole range of particular prohibitions (Leviticus 19: 23ff., 25:1-12, Deuteronomy 14:4, 20:19, 22: 6f., 25:4) it is difficult to credit either White’s claims that Christianity “insisted that it is God’s will that man exploit nature for his proper ends” (11) and that with this victory “the old inhibitions to the exploitation of nature crumbled” (12), or Passmore’s view “that man’s relationships with [nature] are not governed by moral principles”11. Taken alone, these prohibitions could be construed as concerned with property or the elimination of paganism. But taken alongside the passages cited above, and together with the teaching that “The wise man has regard for the life of his beast” (Proverbs 12: 10)—where, according to Welbourn (564), the Hebrew word translated as “has regard for” means “knowing,” e.g., knowing one’s wife or knowing God—they exclude the interpretation that man may treat nature as he pleases.

9 MR, 20.
11 MR, 20. For John Black see n. 52 (below).
Nor can the belief in man's dominion (Genesis 1: 26–28, 9: 1–17, Psalm 8: 5–8) be construed in this sense. Mankind is certainly authorized to rule, but only in a way consistent with the Hebrew notion of kingship. Kings among the Hebrews were regarded as responsible to God for the realm. The attitude appropriate for a king was that of David at I Chronicles 29: 11, 14:

Thine, O Lord, is the greatness, and the power and the glory, and the majesty; for all that is in the heavens and in the earth is thine. . . . But who am I, and what is my people, that we should be able thus to offer willingly? For all things come of thee, and of thine own have we given thee.

Whether or not rulers lived in accordance with this attitude, it is enough that the Hebrew understanding of dominion involved answerability and responsibility in matters of kingship and of property alike.

The conclusion that mankind's dominion over nature was construed as the responsible exercise of a circumscribed mandate is further supported by John Black's interpretation of Genesis 2: 15, part of the Jahwist account of the creation. "And the Lord God took the man, and put him into the garden of Eden to dress it and to keep it." Man was thus to preserve the garden's beauty and protect it from harm, as well as derive his food from it. Passmore writes as if this mandate was abolished by the Fall and the curse which followed; but the prelapsarian mandate of dominion was renewed after the Fall, as Passmore allows (6), and the changed conditions resulting from the Fall can hardly have led the readers of Genesis to hold that mankind was exonerated of previous responsibilities. Similarly Glacken comments on Psalm 8 that once the conception of man's dominion is fully elaborated "there is . . . far less room for arrogance and pride than the bare reading of the words would suggest" (166). Indeed he inclines towards the view that man was in the Bible "a steward of God" (168). Passmore, as we have seen, traces belief among Christians in mankind's stewardship of nature no earlier than the seventeenth century; but at least in this case the interpretation of his mentor is to be preferred.

Likewise the New Testament bespeaks God's care for animals such as sparrows (Matthew 10: 29, Luke 12: 6) and plants such as lilies (Matthew 7: 28–30), just as much as the Old. There is no more reason to regard Jesus' advocacy of rescuing asses and oxen which have fallen into pits on the sabbath (Luke 14: 5) as motivated solely by concern for property than the Old Testament provisions relating to

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14 MR, 31. For John Black, see n. 52 (below).
15 Thus Passmore, TA, 196.
the well-being of domestic animals. Indeed in one parable Jesus regards with obvious sympathy the painstaking retrieval by a shepherd of the hundredth sheep, an act with slight benefit (if any) to the shepherd (Luke 15: 4–7). Against this view of his attitude to plants and animals may be urged his curse on the barren fig-tree (Mark 11: 13f., 20–24) and his treatment of the Gadarene swine (Mark 5: 1–20). In the former case, however, we have a parable at Luke 13: 6–9 which could easily have changed into the Markan narrative. Such a transition would not be unparalleled; and Stephen Clark suspects another in the matter of the pigs, 16 the symbolic significance of which, as unclean animals driven out from a Gentile territory prior to its conversion, may be sufficient to account for their presence in the narrative. It is thus far from clear that the historical Jesus would have countenanced driving the swine to their deaths, though readers such as Augustine no doubt sincerely believed that this out-of-character course of action was actually his.

Paul is certainly a problem case in that regarding the Old Testament prohibition of muzzling the ox which treads the corn he asks, "Does God care for oxen?" expecting the answer "no"; but as Clark points out, "When Paul was actually thinking about the fate of the non-human, as distinct from merely glancing at the topic in the course of a different argument, his judgement is" as in Romans 8:21f., where the whole creation is said to groan in travail in expectation of release from decay and participation in the liberty of the children of God. In "The Treatment of Animals" Passmore accepts that here not only humans are waiting on God (198); and, though he is probably right that the passage has influenced few since the Greek fathers to believe in the resurrection of animals, he cannot regard Paul's attitude to them here as a merely instrumental one. Non-human nature is similarly involved in the salvation of mankind in Colossians (1: 15–20); while at Revelation 5: 13 "every created thing" praises God and the Lamb, and Eden is symbolically restored (Revelation 22: 2; cf. Genesis 2: 9). With such eschatological expectations no despotic interpretation of the New Testament view of nature, even as far as the present is concerned, can be reconciled. The basic attitudes of the New Testament writers must indeed be seen as continuous with those of the Old Testament, which in any case they regarded as authoritative except where it was explicitly superseded.

III. Some of the diversity of Christian attitudes to nature in the patristic and medieval periods is recognized by White when he contrasts the symbolism and the contemplative tone of the piety of the Greek East with the more 'voluntarist' Western theology, which he believes to have promoted science from the early thirteenth century

onwards. There is danger of overgeneralization here; thus Passmore locates in the West the ‘exemplarist’ posture, in which nature is a system of symbols to be decoded for man’s enlightenment, and Stanley L. Jaki finds an approach conducive to science in John Philoponus, the Eastern commentator on Aristotle. In fact Christian attitudes were much more varied than either White or Passmore suggests, though I should acknowledge, as I have argued elsewhere, that the doctrine of creation was conducive to the eventual emergence of modern science.

The gentle and compassionate attitude of the Greek fathers towards nonhuman creatures is recognized by Passmore. Basil prayed for animals; and Chrysostom urged kindness to them because we and they share a common origin. According to Glacken (205) he also held that we can learn from them; and according to A.M. Allchin, Eastern Orthodoxy has never lost sight of man’s cosmic vocation. Moreover, according to John Rodman the Institutes of Justinian incorporated the distinction between the ius gentium and the ius naturae; the latter endorsed motives like self-defense and the maternal instinct in both humans and animals, and significantly was interpreted like this until the seventeenth century. Origen, however, as Passmore points out, was heavily influenced by the Stoic view that the irrational exists for the sake of the rational, a view which may later have influenced Augustine to declare, in the course of an anti-Manichaean polemic, that the judgment of Jesus was that there are no moral ties between humans and animals.

Passmore seems to find lacking among Christians up to the seventeenth century “the view that man’s duty is to preserve the face of the earth in ‘beauty, usefulness and fruitfulness’.” Nor does he recognize as biblical or as Christian the compatible view that people may improve, or attempt to perfect the natural universe so long as they cooperate with its potentials (33, 185). Yet Glacken (192) locates just such a view in Basil’s influential Hexaemeron: “... for the proper and natural adornment of the earth is its completion: corn waving in the valleys—meadows green with grass and rich with many coloured

17 MR, 15.
18 Stanley L. Jaki, Science and Creation (Edinburgh, 1974).
19 God and the Secular: A Philosophical Assessment of Secular Reasoning from Bacon to Kant (Cardiff, 1978), Chap. 1.
20 TA, 198.
23 MR, 16f.
24 Passmore quotes the relevant passage at TA, 197.
25 MR, 31; cf. 185.
flowers—fertile glades and hill-tops shaded by forests.’” Here human changes crown the landscape and complete God’s work, almost as explicitly as the passage of the Hermetic Asclepius, in citing which Passmore acknowledges his debt to Glacken. Basil’s theme of man as the furnisher and perfecter of creation was echoed even more explicitly by Ambrose in the West and Theodoret in Syria.

As to the view of man as steward, Glacken finds this view most explicit of all (300f.) in The Christian Topography of Cosmas Indicopleustes, according to whom God has prepared creation like a house and appoints man to complete and adorn it. The idea of the desirability of improving the land seems to have become a commonplace, being cited alongside many less elevated ones in connection both with forest clearance and with forest conservation throughout the Middle Ages (313–45). Far from contesting Glacken’s interpretation of the sources mentioned in this and the preceding paragraph, Passmore does not mention them, with the exception of Asclepius. This is a strange omission, as they seem to establish, contrary to Passmore’s assertions, that the traditions of stewardship and of cooperation with nature are mainstream Christian ones, and also to strengthen Passmore’s claim that these “minority” traditions are well-rooted in the West.

Passmore’s interpretation of Augustine’s anti-Manichaean passage seems to be right. But he is probably wrong in ascribing to Augustine the view that the irrational exists solely for the sake of the rational (15), or the view that the conservation or improvement of the natural world counts for nothing in God’s eyes (32), unless he is just making the general point that to Augustine no works guarantee salvation. For Augustine commends “the thought that has been spent upon nature” in a passage from Book XXII of The City of God quoted by Glacken (299f.), a passage which praises improvements in agriculture, navigation and, let it be admitted, weaponry, and in its enthusiasm for “exuberant invention” somewhat belies Passmore’s criticism of Augustine’s asceticism. As to the view that everything is made to satisfy mankind’s need or pleasure, Augustine explicitly rejects it. There is, he holds, an order of nature in which the intelligent are superior, e.g., to cattle, the sentient to trees, and living things to the lifeless; but each of these things has “value . . . in itself in the scale of creation.” Moreover, “ . . . it is not with respect to our

26 MR, 33, and 198, n. 12 to Chap. 2.
27 Glacken, 299, 300.
28 At MR, 111f.
29 MR, 188. See also the passage about the wonder and beauty of familiar creatures, cited by Glacken, 199f., and those cited by Robert Nisbet at History of the Idea of Progress (London, 1980), 54-56.
30 The City of God, XII.16, cited by Glacken, 198.
own convenience or discomfort, but with respect to their own nature, that the creatures are glorifying to their Artificer.\textsuperscript{31} Again, Passmore claims that "Augustinian Christianity neither laid the task sc. of completing God's creation on man's shoulders nor promised him God's help if he should undertake it," and believes that the Genesis myth suggests that the Universe is completed simply by man's living therein.\textsuperscript{32} But Augustine held that man participates in God's work through the arts and the sciences, agriculture among them; a teaching put into practice, as Glacken says, by Benedict.\textsuperscript{33} Thus, though Augustine sometimes expressed a despotic attitude to fellow-creatures, his position, seen in the round, does not reflect "Stoic-Christian arrogance," and is largely of a piece with the ideas of Basil and Ambrose on the perfecting of creation. (There was, indeed, a Stoic precedent for this view of mankind's role in the teaching of Posidonius;\textsuperscript{34} but it should be stressed that despite lapses Augustine rejected Stoic anthropocentrism and accepted the intrinsic value of nonhuman creatures.)

In actual medieval practice saintliness was associated with kindness to animals in the West as well as in the East.\textsuperscript{35} Nor could a merely instrumental view of animals have been fostered by the various benedictions on stables and sick domestic animals, or the \textit{Benedictio Deprecatoria} on pests, which C. W. Hume has collected from the medieval Roman liturgy.\textsuperscript{36} Passmore relates (108) that hermits lived in the wilderness because it was the last foe to be conquered; yet monasteries in wild places, as Glacken remarks (302–04), were also seen as restoring paradise. In particular, the monasteries of the Benedictine rule encouraged work aimed at enhancing the beauty and fruitfulness of the landscape.\textsuperscript{37} Nor was it assumed that human action could not damage the environment. In this matter G. P. Marsh's warnings\textsuperscript{38} were anticipated not only by John Evelyn (see next section) but also by Albertus Magnus;\textsuperscript{39} indeed Glacken closely documents regulations aimed at conservation in the Alpine valleys and elsewhere in this period (342, and 313–46 passim). Indeed, active measures, like building dikes and digging ditches, were recognized as

\begin{itemize}
\item \textsuperscript{31} \textit{The City of God}, XII.4, cited by Glacken, 198f.
\item \textsuperscript{32} MR, 33, 212; AN, 258.
\item \textsuperscript{33} Glacken, 200, 304-06.
\item \textsuperscript{34} MR, 33.
\item \textsuperscript{35} Glacken, 309-11.
\item \textsuperscript{36} C. W. Hume, \textit{The Status of Animals in the Christian Religion} (London, 1957), 94-98.
\item \textsuperscript{37} Glacken, 302-04; Robert Nisbet, \textit{The Social Philosophers} (London, 1974), 326-38, esp. 327 and 334.
\item \textsuperscript{38} MR, 23.
\item \textsuperscript{39} Glacken, 315.
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vital for preserving the land. The warnings and the regulations would, of course, have been unnecessary if deforestation was not at times excessive, something which the very success of monastic agriculture appears to have promoted; yet the existence of conflicts over forestry shows that not everyone’s attitude was oriented towards maximizing short-term profits without thought for considerations such as natural beauty or generations to come.

As to the attitudes of medieval divines, the period is, as Glacken relates, too complex to be described in bold strokes (253). Thus Bonaventura and others regarded nature as a system of symbols (237f.), but Albert the Great and others studied it for its own interest as well as for its usefulness (227–29). Peter Lombard, as also later John Calvin, held that everything was made for man; but John the Scot saw the whole of nature as “a movement powered by love of God.” 41 Francis, according to Bonaventura, held views similar to those of Chrysostom about the appropriateness of gentleness towards animals and about the common origins of man and beast, 42 but Aquinas held cruelty to animals to be wrong only because of its bad effects on the agent’s character and the owner’s property. 43 He did also claim, however, that Paul’s remark about oxen means only that God does not care about them as rational creatures, not that they are excluded from his providence. 44 He also recognized the comeliness which God’s adornment of the world with plants added to its original shapeless condition, and understood mankind’s proper work as including the further adornment of the created earth. 45 Passmore is probably right to imply that Aquinas’ views have encouraged insensitivity towards animals. But his belief that it is part of man’s perfection to impart perfection to other creatures after their kind 46 coheres well with the longstanding tradition of Posidonius, Basil, and Ambrose. Indeed overall “Greco-Christian arrogance” is an unsuitable characterization of the patristic and medieval attitudes to nature, which often, though falteringly, approximated to that of active stewardship approved (but not found in this period) by Passmore.47

40 AN, 253, MR, 13.
41 Glacken, 212.
43 TA, 201.
44 Summa Theologiae, 1, q. 103, a5, ad2. As Rodman points out (3 and n. 3, p. 20) Aquinas also incorporated verbatim Ulpian’s definition of ius naturae, and expounded it in terms of the instinct for self-preservation common to men and animals (Summa Theologiae, 1, q. 94, a2).
45 Glacken, 234, nn. 196 and 198.
46 Summa Theologiae, 1, q. 103 a6; also ibid., ad2.
47 MR, 185.
Though Calvin held that everything in creation was made for human beings, this was denied by Descartes, and solemn reminders of its falsity were issued in the same century by Henry More and John Ray, in the next century by Linnaeus, and in the nineteenth century by William Paley. Indeed Calvin combined his anthropocentrism with a belief in stewardship over the whole earth, not just, as Passmore claims, over the reprobate. Thus he writes: “Man was created in this condition, that the earth was subject to him; but he enjoys it only when he understands that it has been leased to him by the Lord. . . . Now if I want to plunder the earth of what God has given it for the nourishment of men, . . . I want to bring to nothing the goodness of God. . . .” and his teaching was “Let every one regard himself as the steward of God in all things which he possesses.” Here the biblical belief in stewardship and responsible dominion is re-emphasized well before its expression, according to Passmore, for the first time among Christians by Sir Matthew Hale in 1677.

In a deservedly famous passage, Hale wrote that man was created as God’s viceroy, steward, and bailiff and was given dominion to curb the fiercer animals, protect the tame and useful ones, to preserve and improve plant species, to check unprofitable vegetable growth, and “to preserve the face of the Earth in beauty, usefulness and fruitfulness.” Passmore regards Hale’s acceptance of this latter duty as not typically Christian, but it was in fact in direct continuity with the views of Basil, Ambrose, and Theodoret. (Indeed, Passmore’s view that the activist attitudes of Hale—and also of Bacon—were Pelagian and out of keeping with Augustinian Christianity would seem to imply that Augustine himself, with his praise of human art and industry, as attested above, was a Pelagian!) It should be remarked, however, that Hale held that all creatures, whether high or low in the natural order, are adapted to one another’s needs and convenience, and not only to those of mankind.

With Francis Bacon and René Descartes we certainly encounter a more activist and somewhat more ruthless approach, and to these pioneers of modern science Passmore attributes the beginnings of an uncompromising application of the attitude that man is at liberty to
modify nature as he will (17). Bacon certainly hoped that the application of science would lead to the restoration of man’s dominion, and in the *New Atlantis* he cherished the aim of “the enlarging of the bounds of the Human Empire, to the effecting of all things possible.” He also (like Descartes) supported vivisection for the sake of medical research. Yet his words must be read against his admonition about the ends of knowledge, which is not to be sought for pleasure, profit, fame, or power, “but for the benefit and use of life, and that they perfect and govern it in charity. For... of charity there can be no excess.” Neither these words nor his commendation of reverence before nature are the sentiments of a man who believes that there are no moral constraints on human transactions with nature.

Descartes is often held, as by Passmore, to have supposed that nonhuman animals lacked feelings altogether. That, unlike his follower Malebranche, Descartes did not believe this had been convincingly argued by John Cottingham; but their supposed lack of thought in such animals was held by Descartes to justify killing and eating them. His aim that we should “render ourselves the masters and possessors of nature” certainly has a despotic tone; yet he was no advocate of irresponsible ruthlessness. Thus Descartes held that it was right to forego benefits for the living for the sake of the long-term advantage of posterity, one of the central emphases of modern environmental ethics; and he would have opposed short-term gains which threatened human health, one of his main preoccupations. He also stressed the requirement for humility to reflect on our faults and the infirmity of our nature, in a way lacking in many of his followers.

In 1662 the Royal Society was instituted in England to pursue science by Baconian methods. Its members regarded this pursuit as a means of glorifying God and discovering evidence of His handiwork. One of the first works of its members was John Evelyn’s *Silva, or A Discourse on Forest Trees;* in it, as also in the official French Forest Ordinance of 1669, the dangers of excessive deforestation are

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55 Ibid., 241 (from *New Atlantis*).


57 Ibid., 16.

58 TA, 204.


62 Haldane and Ross, I, 122; from *Discourse,* Part VI.

63 Haldane and Ross, I, 402: from *The Passions of the Soul,* Art. CLV.
stressed, and Evelyn urges the need to understand and preserve the forests both in the national interest and for the sake of natural beauty. A similar and perhaps more striking expression of his concern to avoid the adverse side effects of human action is found in his Fumifugium, a discourse on atmospheric pollution in cities such as London. In many ways Evelyn anticipated George P. Marsh's theme in Man and Nature (published in 1864) of the despoliation of nature by mankind. Thus the earliest adherents of modern science were far from believing that people could treat nature as they pleased. (Evelyn's theme was taken up in the eighteenth century by another theistic believer, J. G. Herder, who recognized that the land in North America had deteriorated as a result of human activity.)

Passmore is, I believe, correct to interpret George Herbert as holding that nature is man's servant. But this was not the only attitude of all British poets of the seventeenth century. Thus the Welsh poet Henry Vaughan believed in the resurrection of all living creatures:

O knowing, glorious spirit! when
Thou shalt restore trees, beasts and men,
When thou shalt make all new again
Destroying onely death and pain,
Give him amongst thy works a place
Who in them lov'd and sought thy face!

while another of his poems bears as its title Rom. Cap. 8 ver. 19, and as its subtitle the Vulgate rendering of that verse, Etenim res Creatae exerto Capite observantes expectant revelationem Filiorum Dei. These poems make it clear that Paul's reflective views on the non-human creation were not altogether neglected among Christians until recent times.

Nor was consideration for animals restricted to those influenced by the Talmud such as the Leibnizian philosopher, A. G. Baumgarten. Kant relates that Leibniz, after using a tiny worm for scientific observation "carefully replaced it with its leaf on the tree so that it should not come to harm through any act of his." Leibniz was a Christian who believed that all created substances, whether high or
low in the chain of being, had a perfection of their own to attain. (As to Kant himself, Passmore is correct that he denied duties to animals,\textsuperscript{70} but gives a misleading impression by quoting without further qualification Kant's remark that "... supposing we regard nature as a teleological system, he (man) is born to be its ultimate end."\textsuperscript{71} For in his third \textit{Critique} Kant emphatically rejected the belief that man is the end of creation, denying at the same time that nature is a teleological system.\textsuperscript{72}) Passmore is correct in detecting a dramatic change to more humane attitudes to the treatment of nonhuman animals in the last two hundred years, and in tracing the origins of this rapid transition to utilitarians such as Hume and Bentham and to the Evangelicals. But the traditions of Christendom were less uniformly inhospitable to this change than Passmore represents them as being; indeed this shift in attitudes is the more intelligible if there existed some of the "seeds" of it within those traditions. Thus belief in the naturalness and rightness of compassion for animal suffering is found in William Wollaston and among the New England clergy.\textsuperscript{73} Further, if, as Macaulay held, the Puritans hated bear-baiting because of the spectators' pleasure in it,\textsuperscript{74} could they have altogether lacked, he also implies, sympathy for bears?

Coleman finds that seventeenth-century Christian apologetics endorsed capitalist enterprise and abandoned traditional Christian objections to the exploitation of man and nature. Of the three apologists cited (John Ray, William Derham, and Nehemiah Grew) only Ray wrote the relevant work in that century. All these writers traced the hand of providence in the wonders of science and the activity of man; and doubtless too much "Industry of Man" was eventually justified by these means in some quarters. Yet there is nothing exploitative about the passage which Coleman quotes from Ray; indeed, the tone is little different from that of Basil, who, as will be seen, had used many of the same phrases and the same scriptural quotation: "I persuade myself, that the bountiful and gracious Author of Man's Being and Faculties, and all Things else, delights in the Beauty of his Creation, and is well pleased with the Industry of Man, in adorning the Earth with beautiful Cities and Castles; with pleasant Villages and Country-Houses; with regular Gardens and Orchards, and Plantations of all Sorts of Shrubs, and Herbs, and Fruits, for Meat, Medicine, or moderate Delight; with shady Woods and Groves, and Walks set with Rows of elegant Trees; with Pastures cloathed with Flocks, and Valleys covered with Corn, and Meadows burthened with Grass, what-

\textsuperscript{70} TA, 202. \hspace{1cm} \textsuperscript{71} MR, 15. \hspace{1cm} \textsuperscript{72} Glacken, 540f.  
\textsuperscript{73} See Norman S. Fiering, "Irresistible Compassion: An Aspect of Eighteenth Century Sympathy and Humanitarianism," \textit{JHI}, 37 (1976), 195-218; 204f. Passmore himself mentions Wollaston in a related connection of TA, 207. \hspace{1cm} \textsuperscript{74} TA, 195.
ever else differenceth a civil and well-cultivated Region, from a barren
and desolate Wilderness.” 75 Granted also Ray’s rejection of the view
that everything was made for humans, Ray’s posture cannot be re-
garded even as the foreshadowing of an exploitative attitude. How far,
though, was such an attitude manifested in the next century?

Derham’s writings were, as Coleman remarks, even more popular
than Ray’s; and they certainly include the endorsement as providen-
tial of a great diversity of human predispositions, including those to
“Mechanics, Architecture, War, Navigation, Commerce and Agricultu-
re.” 76 Elsewhere Derham applied the language of stewardship to
God’s requirement for diligence in one’s calling, whether as priest,
“Gentleman, Tradesman, Mechanick or only Servant.” 77 Human
ingenuity in the various walks of life is providential because it guaran-
tees that no opportunity will be neglected which could satisfy the
“Necessities and Occasions of the World” and of civilization. 78

Coleman rightly criticizes Derham for placing all the various “call-
ings,” including war and commerce, on the same moral footing. “Der-
ham”, he proceeds to remark (33), “clearly portrays the ultimate
adaptation of English church doctrine to the urgent needs of those
who held economic expansion to be society’s preferred objective.”
Indeed, at one point (35) he represents Derham as accepting here “a
divine command to steel ourselves for a ruthless assault upon
nature.”

This assessment seems less than fair. Some of the time Derham
simply reaffirmed (as George Herbert also had) the Pauline theme that
talents should not be wasted and that mundane tasks should be per-
formed as if for God. He sometimes wrote in a manner insufficiently
critical of the new capitalism of his day; but we can hardly take him
on the strength of this lapse to be favoring the deforestation and
pollution of the planet, rather than the achievement of the kind of
landscape praised by his friend Ray. Indeed, Derham’s time and writ-
ings, to judge by papers cited by Coleman and by Glacken’s account,79
were occupied with neither social advocacy nor the defense of com-
merce but with amassing the painstaking detail of a cumulative design
argument and with biological and astronomical observations con-
ducted partly for the sake of this project and partly for their own sake.

76 William Derham, Physico-Theology: or, A demonstration of the being and
attributes of God, from his works of creation, 10th ed. (London, 1742), 263, cited by
Coleman, 33.
77 Coleman, 35f.
78 Coleman, 33-35.
79 A.D. Atkinson, “William Derham, F.R.S..” Annals of Science, 8 (1952), 368-
92; J.J. Dahm, “Science and Apologetics in the early Boyle Lectures,” Church
It also seems to have been for this teleological reasoning that Derham was read and remembered, and not for his subsidiary theme of the providential nature of human enterprise.

Nor does Coleman establish that Christianity in England abandoned its previous strictures on greed and self-aggrandizement and began to give unqualified backing to capitalist expansion. The overall picture is a complex one which cannot adequately be investigated here; but it is to be doubted if either Swift or Pope endorsed the attitudes ascribed by Coleman to Derham. Nehemiah Grew, botanist, theologian, and author of The meanes of a most ample increase of the wealth and strength of England in a few years (circa 1707)\(^{80}\) constitutes evidence in favor of Coleman’s case; so too, perhaps, may John Locke’s second Treatise of Civil Government with its defense of enclosures and property, though with Locke there were qualifications which would, if applied now, as Gregory Kavka has argued,\(^{81}\) severely curtail economic growth. There again, some Christians who turned to trade, such as the eighteenth-century Quaker ironmasters, continued to observe constraints on the pursuit of profit, insisting on honesty in business dealings, foregoing the profit to be had from Sunday working, and showing concern for the working conditions of employees.\(^{82}\) Christians did not in general, then, embark on a relentless assault upon nature; and if, as Coleman holds, “the principal contribution of Christian doctrine to our environmental crisis was the creation and application of a new apologetic...” as put forward by Derham, then the empirical evidence which would be required to attest White’s thesis as applied to the seventeenth and eighteenth centuries is still wanting.

V. Christian attitudes to nature have not typically been exploitative, pace White, Passmore, and Coleman. Positions held by Christians on the treatment of animals have, I should acknowledge, often been open to severe moral censure, and to some extent still remain so. (Meanwhile the conditions in which many animals are now being reared for food are nothing short of appalling; there is thus probably more maltreatment of animals for Christians and others to protest against now than ever before.) But efforts to establish a link between Christian ethics and our worldwide environmental problems have been inconclusive. If attitudes have contributed significantly to these

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80 Cited by Coleman at 35, n. 16.
problems at all, it is at least as cogent to cite belief in the inevitability of progress, especially where progress is construed as involving increasing consumption. This attitude is more easily correlated with, e.g., the geographical spread of industrial pollution, than with belief in man's God-given dominion or stewardship.

Lynn White seems hostile to any active approach to nature, even to the investigative activity of science, which he rightly finds Western Christianity to have eventually fostered. Passmore, by contrast, accepts that science and technology are of value, that people should take account of the side effects of their actions disclosed by science, and that they should not abandon technological activity in exercising responsible dominion over nature, preserving both the earth and human civilization. But, like White, he is wrong to hold that Christians have usually held that people may treat nature as they please. Christians can accept that the survival of humanity is not supernaturally guaranteed, and indeed have the resources in their tradition to accept more far-reaching obligations with respect to future people and fellow-creatures than Passmore now accepts. None of this requires abandonment of the Judaeo-Christian belief in God's good purposes.

Belief in man's stewardship is far more ancient and has been far more constant among Christians than Passmore allows; and, though Coleman exaggerates Derham's position, he is correct in noticing that this belief can have far-reaching implications. Thus secular versions of the position that one's energy, talents and possessions are held in trust and are to be deployed responsibly occur frequently among contemporary writers seeking an ethic suited to environmental questions, and not least in the writings of Passmore. I am not, however, claiming that all Christians have held any one view of nature; too diverse, as Glacken says, are the positions which Christians have held. History bears out his claim that one must grant "the contradictions and difficulties in exploring that intractable subject, the Christian view of nature, once one has advanced beyond the first easy assertions." Yet not even the first easy assertions should find a despotic attitude to nature typical of Christians. The biblical position, which makes people responsible to God for the uses to which the natural environment is put, has never been entirely lost to view, and may properly be appealed to by the very people who rightly criticize the exploitative attitudes which prevail in many places throughout the contemporary world.

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83 MR, 185.
84 These matters are more amply discussed in Robin Attfield, The Ethics of Environmental Concern (Oxford and New York, 1983).