

Design in Nature

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An explicitly biblical view of design in nature is discussed according to the themes of creation and providence, divine wisdom, awe, and the role of creation in declaring the glory of God. These biblical themes are contrasted with modern design arguments that draw on contemporary science, with particular reference to 'intelligent design'.

Creation

The Bible begins with a resounding declaration that the universe is the creation of the one almighty God, who had only to say so and it came into being: 'In the beginning God created the heavens and the earth... And God said... and it was so.' Ignoring the question of the timescale and possible mechanisms of creation, we find that this theme runs through the whole Bible and is developed in various ways so as to fill out its significance. Perhaps it is most famously exemplified in the New Testament by the prologue of John's Gospel: 'In the beginning was the Word, and the Word was with God, and the Word was God... Through him all things were made; without him nothing was made that has been made.' This foundational truth is key to understanding the whole edifice of Christian doctrine. The Bible never speaks of 'Nature', especially not 'Mother Nature', as if it were an entity independent of God – in fact the term itself in this contemporary sense is simply absent from the biblical text. The universe is seen as directly 'the work of his hands' and not in any sense an aspect of God's nature, although it tells us some things about God.

The degree to which the created order reveals knowledge about God is a large subject with a very extensive literature and James Barr, in a recent book, helpfully discusses many of the relevant biblical passages.¹ The biblical writers are united in their insistence that the cosmos reveals the reality and power of the Creator God. Romans 1: 19-23 sets this out as clearly as any biblical passage. Here it is stated that all people are under God's wrath when they have turned away from: 'what may be known about God (and) is plain to them... For since the creation of the world God's invisible qualities – his eternal power and divine nature – have been clearly seen, being understood from what has been made, so that men are without excuse.' This surely means that people can perceive, however vaguely, that there must be an all-powerful divine being behind the material world. This knowledge is accessible to all people irrespective of their cultural or educational background, and no knowledge of science is required to make such knowledge available; it comes by simple observation and personal experience of the wonders of the world around us. The Romans passage goes on to say that people have nevertheless tried to suppress their understanding of this truth, although not entirely successfully.

Most of the sermons in the New Testament are addressed to Jews, or to those more generally who accepted Old Testament teachings, so that the truth that this is a world created by God is taken almost for granted in this context. Strikingly, in the only two recorded sermons to audiences that did not have this background, at Lystra and Athens (Acts 14:14-18; 17:22-31), Paul does stress the fact that this is a world created by God and that his listeners should respond to that fact, acknowledging that the creator God is not to be compared with lesser 'deities', and therefore they should seek to find him. The Old Testament

repeatedly states as fact that this universe is created by God, but is at pains to stress that it is the God, Jahweh, and not any of the other so-called gods, who is responsible both for its creation and its continuing functioning. He alone made and rules the stars, for instance, but at the same time he is known as the God who interacts with people and is no remote creator. In the Old Testament there is no real attempt to argue for the fact that this is a created world, rather it is treated as almost self-evident: certainly a truth that everyone is made aware of from observation. Psalm 19 expresses it like this:

The heavens declare the glory of God;
the skies proclaim the work of his hands.
Day after day they pour forth speech;
night after night they display knowledge.
There is no speech or language
where their voice is not heard.
Their voice goes out into all the earth,
their words to the ends of the world.
(Ps. 19:1-3)

The biblical claim is that all people in all cultures and at all times have some awareness of the fact that God is behind the universe, based on their own personal observation. As James Barr puts it, the biblical passages are talking of ‘easily available public knowledge that is seen by everyone...not...information that is not otherwise known: it is a matter of new insight into matter that is already “naturally” known and familiar’.²

Creation and Providence

It is important to realise that the idea of creation and the continual control of the world – what we often call providence – merge into one another in biblical thought. So Paul, in his speech at Lystra, says that: ‘The living God who made heaven and earth and sea and everything in them... has shown kindness by giving you rain from heaven and crops in their seasons’(Acts 14:15,17). This title ‘the living God’ is often used by the biblical writers to stress that God is active in the world. He does things. God’s sovereignty in nature is shown not only in its existence, but in its continuing maintenance. Similarly, when Paul was speaking at Athens, he said that: ‘The God who made the world and everything in it...gives all men life and breath and everything else’ (Acts 17:24,25).

When we are called to acknowledge God as ‘our Creator’ we are being called not only to acknowledge that without him we and the universe would not exist, but also that he has brought us into being as we now are, even though (as we now know) it is the result of a long series of genetic and environmental processes. To the biblical writers the processes of ‘nature’ that science is exploring today are as much the work of God as the existence of the world itself. It is he who sends the seasons, as he has promised, so that when he is thanked for the harvest it is not just for the fact that there is the cycle of life that gives a crop, but that in his goodness this has happened once more. God is the Great Provider; hence the word providence.³ There is a huge difference between the concept of God as merely the great designer and the biblical idea of the living God. As Calvin expressed the point: ‘without proceeding to his Providence we cannot understand the full force of what is meant by God being the Creator’.⁴ God creatively maintains the world so as to provide

for living things. 'He sustains all things'; as Hebrews 1:3 expresses it. If he did not, it would all dissolve into chaos and disappear. As Jesus himself said: 'He causes his sun to rise on the evil and the good, and sends rain on the righteous and the unrighteous' (Matt. 5:45, note the present tense). Psalm 65 has it like this, also using the present tense: 'You care for the land and water it: you enrich it abundantly. The streams of God are filled with water to *provide* the people with corn, *for so you have ordained it*...You crown the year with your bounty... The meadows are covered with flocks and the valleys are mantled with corn; they shout for joy and sing' (Ps. 65: 9-13, my ital.). So the fact that the land can be fruitful and that it is in fact so are two aspects of the same care of God for his world that make it a place fit for life. 'For this is what the Lord says – he who created the heavens, he is God; he who fashioned and made the earth, he founded it; he did not create it to be empty, but formed it to be inhabited'(Isa. 45:18). God is presented as the One who has deliberately brought into being and maintains a world that can support life. So the state of the world is evidence not only for the existence and power of God but also for his kindness and care for his creation.

Does this include an argument for design? Clearly if it is God who has created and rules 'nature', deliberately for the good of living things, including humanity, then his design is *implied* in the way that things are organised. But this is a very different stance from those arguments for design which seek to show that some of the particular findings of science point to a Great Designer. Instead the biblical writers see the existence, and the generosity of God to humanity, in the whole panoply of the created order and its ongoing processes.

Scientific evidences of design?

Discussions about design by God in the natural world have in recent years tended to be dominated, as they were in parts of the nineteenth century, by those features of the world that are currently thought to be scientifically inexplicable. For example, Michael Behe has suggested that there are biological entities, such as complex biochemical pathways, that display 'irreducible complexity' in the sense that, in his view, they could not have come into being by gradual Darwinian processes and therefore display the properties of 'design'. A considerable body of literature has been generated by the 'intelligent design' controversy.⁵ The main advocates of this school see the evidence for design especially in those scientifically describable features of the world that at present have no convincing scientific explanation.

Taken overall, the major stages in design arguments may be summarised as follows.

1. There are many features in nature that powerfully suggest that they were designed by an intelligence. Even so sceptical a writer as Richard Dawkins agrees, although of course he speaks of 'apparent design'.
2. Many people go on from there to believe that the universe is indeed designed by God. Christians have no difficulty in taking that step, as noted above, viewing the whole panoply of the universe, with all its processes, whether scientifically understood or not understood, as reflecting the intentions and purposes of God. In this more traditional understanding of design it makes no difference whether something is currently understood or not at the scientific level.
3. Enthusiasts for intelligent design, however, are making a very different kind of argument, suggesting that 'design' can be detected by mathematical and other arguments, claiming that there

are *scientific* features of the world that are such that we cannot conceive how they could have come into being by material processes alone. Therefore it is logical to accept the activity of a designing intelligence as responsible. Their main target is usually large-scale evolution and its perceived weaknesses, and other areas where scientific explanations are currently incomplete, such as the origin of life, the information encoded in DNA, and so forth.

It is not the purpose of this article to provide an extensive critique of ID, which has in any case been thoroughly done by others,⁶ but rather to achieve the less ambitious goal of examining the differences between concepts intrinsic to ID and the main themes of the biblical literature. These differences may be summarised as follows.

1. ID arguments have a tendency to separate the created order into the 'natural' and the 'designed'. Indeed, implicit in Dembski's suggestion that 'design' can be detected by strictly mathematical arguments is the assumption that there must be a backcloth of 'non-design', otherwise the argument makes no sense. This is very different from the biblical insistence that the created order in its entirety reflects the creative and providential actions of the living God.

2. This lack of a strong view of providence in the ID position can easily merge into semi-deism. Indeed, even if ID design arguments were accepted, they could by themselves lead no further than a deistic or semi-deistic position. Their aim is to encourage belief in a divine power or intelligence that has influenced the world directly only from time to time, and then only in highly limited and particular aspects, such as the origin of the genetic code or the Cambrian explosion in evolution. Thus Bradley and Thaxton⁷ argue that since all the attempts to find a way in which life could have arisen by natural processes are inadequate, and life is incredibly complex, 'the most reasonable speculation is that there was some form of intelligence around at the time'. And as Dembski writes: 'The question, then, that requires investigation is not simply what are the limits of evolutionary change but what are the limits of evolutionary change when that change is limited to material mechanisms...The best evidence to date is that these factors are inadequate to drive full scale macroevolution. Something else is required – intelligence.'⁸ But Dembski would have done well to say that he means all the material mechanisms that we at present know about, as his point sounds remarkably similar to the disastrous 'god-of-the-gaps' argument. The phrase 'we cannot conceive how...' recurs repeatedly in the ID literature, and cannot escape the criticism that it depends on *what we do not currently know* or cannot understand or conceive in the present state of knowledge. That point is frequently implicit, when it is not explicit as in the above quotations, and can easily give the impression that belief in God is somehow dependent on scientific evidence. This is very different from the biblical approach, which depends basically on *what we do know* and can see all around us, however it may have been made by God. There is a danger in thinking that the present state of science is almost final. But one hundred years ago, who would have conceived of sequencing multiple genomes, including our own? Even a few years ago we had no idea that genomes could be modified by imprinting in an inheritable manner, nor that micro-RNA is encoded in the genome, with its power to modulate protein synthesis by regulating mRNA. In science it is wise to 'never say never' when it comes to guessing what might be understood or possible in the future.

3. There are real theological dangers in the concept of the ‘Great Designer’, and they can only be avoided with considerable care. If God is perceived as essentially the Great Designer, that is greatly to *diminish* our idea of him, because it concerns only one limited aspect of his character. It is also a comparative term, so that he is seen as doing things only rather better than we can, as when Freemasons call him ‘The Great Architect’. Indeed it has the danger of defining a ‘god’ who is made in our own image. That is perhaps why ID arguments are acceptable to many non-Christians. But in reality the biblical God is infinitely other than that, the living and active Creator. God is no doubt the great designer, architect, mathematician, physiologist, environmentalist, etc., etc., but he is so much more than all of these put together. The Bible portrays God as the personal, triune, *Creator* and *Providential Ruler* of all things, the God who is living and active today. Design arguments can detract from, or sideline, that biblical perspective. One is reminded of the way in which that great mathematician and scientist of the seventeenth century, Blaise Pascal, came to a revolutionary change in his outlook on God when he wrote of the ‘God of Abraham, God of Isaac, God of Jacob, not of the philosophers and scholars’.⁹ The God of the Bible is not to be thought of as merely a great designer and it is an empty victory to have persuaded people to believe merely that. The history of Deism warns us that making such a view prominent can be a barrier, and not a help, to faith in the living God.

Biblical approaches to design

The biblical idea of creation and providence as fulfilling God’s good purposes implies, as we have said, that the world is designed by him. But we have to ask: Designed for what? The answer must be to play its part in God’s overall beneficent purposes of creation and providence. God’s purposes could, in principle, be achieved as much through an evolutionary process as in any other scientifically defined process. It is important to remember that there is no clear demarcation line in the Bible between God’s ‘works’ in nature and his ‘works’ in history: He is seen as sovereign in both.¹⁰ Within this overall theme of Creation and Providence there are, however, particular elements that clarify the biblical emphasis and could be described as pointing more clearly to the idea of God’s design, even though that is not their main purpose.

The wisdom of God in the natural world

This is epitomised in the phrase: ‘in wisdom you made them all’. That is the apex of the great Psalm 104 (Ps. 104:24), where the writer has spent time remarking on the way in which the whole natural order fits together and functions in a harmony. There is perhaps an allusion here to Genesis 1, where in the first verse it tells us that, when the earth was ‘formless and empty’, the Spirit of God produced order and substance. The psalmist reminds us how God has given light, orderly waters and dry land, springs of fresh inland water for the animals and plants, rain so that there is grain for food, trees for the birds, and the seasons with day and night. The writer is amazed, as we are, at the infinite variety of creatures on the land and in the sea, ‘teeming with creatures beyond number’, and at the rhythm of life in terms of death and new generations of animals all ruled by the Spirit of God. So he exclaims: ‘How many are your works, O Lord! In wisdom you made them all’.

The biblical concept of wisdom is very different from the modern one. If we use the term almost entirely of intellectual analysis and problem solving, the Bible thinks of it more as a practical ability to see what needs to be done *after* understanding the real inwardness of a situation. Derek Kidner describes it as discerning ‘the bottom line of life’. The book of Proverbs is of course where it is best developed. There human wisdom

is the ability to see what really matters in life and how to live accordingly. The term ‘understanding’ is almost equivalent to wisdom. It is not just common sense, it is understanding of what life is all about and what is of value and what is not. Sometimes wisdom is personified as the agent of creation: ‘By wisdom the Lord laid the earth’s foundations, by understanding he set the heavens in place’ (Prov. 3: 19; Ps. 136: 5). It therefore follows naturally to state repeatedly that ‘The fear of the Lord is the beginning of wisdom’ (Prov. 9: 10; Ps. 111: 10). One might say: ‘If you want to know what life is all about: then you must start here. You need to know that God is the one who invented it all and in the end calls all the shots.’ The beginning of wisdom is to understand that this is the case.

The world is incredibly ingenious: the hummingbird makes the helicopter look like a child’s toy – all in a body that weighs two or three ounces, which can also reproduce itself! The fact that birds can navigate thousands of miles of sea and land on a migration to the best feeding grounds, which they have never visited before, without refuelling, and then return at the right time to breed in a more suitable climate is truly astonishing. They are seen as expressing some part of the wisdom by which they were created: ‘Does the hawk take flight by your wisdom and spread his wings towards the south?’ asks God of Job as one example of the wisdom of God and the relative ignorance of humankind (Job 39: 26). He is not asking us to think that we can never discover the means whereby birds migrate, but simply to look at the world as a whole and see how astonishing it is, an astonishment much enhanced as our scientific knowledge increases. Richard Dawkins makes the point well when he writes: ‘Whenever humans have a good idea, zoologists have grown accustomed to finding it anticipated in the animal kingdom... examples include echo-ranging (bats), electrolocation (Duckbill), the dam (beaver), the parabolic reflector (limpets), the infra-red heat-seeking sensor (some snakes), the hypodermic syringe (wasps, snakes and scorpions), the harpoon (cnidarians) and jet propulsion (squids).’¹¹

As God sketches some of the remarkable features of the created order in Job 38-41, he asks not ‘could you explain that?’, but rather: ‘Did *you* do that?’ Hence his basic challenge: ‘Where were you when I laid the earth’s foundations?’ So the question it poses to us today is not: ‘Could you imitate the created order or can you think out how it may have come to be as it is, given our present knowledge of the world?’ It is rather: Did *you* bring into being the immense variety of things on the earth and in the heavens that confront you when you stop to think? Oliver O’Donovan comments on these chapters:

[Job] is to be humbled by a pageant of natural phenomena, glorious in its sheer observational detail: oceanology, geology, meteorology, astronomy and, of course, lots of animal ethology...this proud specimen of our race...has no claim to a stable and well-balanced ecosystem... God speaks with nature’s voice, because nature excites a palpable sense of our human contingency and teaches us to worship. Our problem today, which is also the cause of our problems in the more specific sense, is that our awe has given way to an exploitative and managerial approach to nature.¹²

Does this, however, indicate the idea of design in the natural world? I think we must say again that it implies it. If God has made the world so that it has these features and is a unified whole that serves the purpose of supporting life, then it is incredibly ingenious, and the inference of ‘design’ appears entirely reasonable. But the biblical writers themselves do not seem to stress such an idea at all, perhaps because it suggests too small a concept of God.

Awe before the natural world

This is well epitomised in the phrase: ‘I am fearfully and wonderfully made’, which comes from the well known Psalm 139, where the writer is humbled and indeed awestruck by the wonder of a God who both rules our personal histories and is at the same time the creator of all: You created my inmost being:

You knit me together in my mother’s womb.
I praise you because I am fearfully and wonderfully made;
your works are wonderful,
I know that full well.
My frame was not hidden from you
when I was made in the secret place...
your eyes saw my unformed body.
All the days ordained for me
were written in your book
before one of them came to be.
(Ps. 139:13-16)

The biblical writers are rightly awestruck at the wonder of the way the world works. To return to Psalm 104, the writer is excited by the fittedness of the whole world for life. Streams run from the mountains and into the valleys and so provide for the animals and plants, which in turn provide food and nesting places for the birds. Even the high mountains provide refuge for the wild goats and conies, and the regularities of the seasons and the predictability of day and night make possible a rhythm of life and huge varieties of life forms. It is awesome. There is something very deficient in our thinking if we do not marvel at the world that our scientific practice enables us to study. The biblical writers want us to stand in awe of God’s creation. We are only digging out things that he has put there and pride in our discoveries is totally inappropriate. Admiration of the creator’s work is what is due, and scientists who are Christians should always be at the forefront in highlighting those aspects of the created order that arouse our wonder.

The Glory and Beauty of Creation

When Psalm 19 tells us that: ‘The heavens declare the glory of God; the skies proclaim the work of his hands... there is no speech or language where their voice is not heard’ (Ps. 19: 1-3), what exactly is it that is ‘declared’? The glory of God has been defined as ‘the revelation of God’s being, nature and presence to mankind’. It is a common phrase in biblical thought and always seems to include reference to the awesome power and perfection of God. For example, God says to Moses that ‘the glory of the Lord fills the whole earth’ (Num. 14:21) and Isaiah the prophet in his overwhelming vision of God heard a voice in the temple saying: ‘Holy, holy, holy is the Lord Almighty: The whole earth is full of his glory’ (Isa. 6: 1-4). The theme of God’s glory also occurs in the New Testament. For example Paul may well have been thinking of Psalm 19 when he writes of God’s ‘eternal power and divine nature’ in Romans 1. Paul’s address at Lystra (Acts 14:14-18) emphasises that we should see God’s providential beneficence to us as another aspect of his glory. There is no suggestion that we can see the message of the Messiah and his salvation in nature. But Paul uses the truth of God’s glory seen in his creation to challenge people to seek him, as also in His sermon at Athens.

It is relevant to emphasise that the biblical writers highlight the ‘invisible qualities’ of the created order, insights existing *on a different level from* discussion of the detailed facts of science. When we are told that the heavens declare the glory of God, the passage is not talking specifically about its complexity or its utility to us, but rather what Psalm 8 calls God’s ‘majestic name’; that is, his majestic character. The Psalm surveys some of the features of the created order, but starts and finishes with ‘O Lord, Our Lord, how majestic is your name in all the earth.’ Note that it is *all the earth*. Revelation of an understanding of God’s majesty is not the end product of a scientific argument: it is rather implicit in the whole. The poet expressed it well when he wrote: ‘the world is charged with the grandeur of God’,¹³ or as it has been put ‘shot through with the glory of God’.

The idea of the beauty of creation at first sight appears to be intrinsic to the idea that it expresses the glory of God. For many people it is the extraordinary beauty of the world that strikes them as evidence that God has designed it. However, I cannot find this stated in the Bible either explicitly or even indirectly, although Jesus told his disciples that even the lilies of the field, although temporary, outshone ‘Solomon in all his splendour’ (Matt. 6:28,29). One reason for this lack of emphasis is that beauty is temporary and another may be that it is largely a matter of what seems beautiful to us. Tastes change and beauty has a large subjective element. Not long ago, for instance, the magnificent snow capped mountains of the world that to us seem so beautiful were regarded with almost universal horror, while the spider in the bath is only beautiful to those who have had the opportunity to study it in detail. In fact the Bible often refers to the passing nature and the seductiveness of beauty: ‘Charm is deceptive and beauty is fleeting’ says the book of Proverbs (Prov. 30:31). Nevertheless there is certainly the recognition that beauty is something to give thanks for as a gift from God and beautiful things are valued. The temple and the Old Testament tabernacle had to be made to be beautiful, as less than that would not be to honour God. God ‘has made everything beautiful in its time’ says the preacher (Eccles. 3:11) but goes on to say how he cannot find in that the secret of life. Therefore while we are encouraged to admire beauty and to appreciate it, the Bible does not emphasise it, nor use beauty as evidence that the universe is made by God or shows his design. The data that come to our senses are in any case ambiguous, as the world also contains things that are ugly, although overall it is difficult not to believe that such a beautiful world does point to a wonderful creator and move us to acknowledge that such beauty is at times aweinspiring as well as cause for heartfelt thanksgiving. Paul reminds us that ‘God... richly provides us with everything for our enjoyment’ (1 Tim. 6:17) and the beauty of the world is something that we should enjoy as an important aspect of God’s generosity.

Certainly the Bible encourages us to enjoy the wonders of the world. As the famous verse in Psalm 111: 2 has it, ‘the works of the Lord are great, sought out by all those who take pleasure in them’. This has always been a favourite text for scientists who take pleasure in discovering the wonders of his works. There is enormous pleasure in science, even when we are not discovering anything new, but just enjoying its descriptions of the hidden intricacies of the natural world. The pleasures and joys of life are therefore seen as aspects of God’s creation which he has planned for us. In that sense they bear indirect witness to his design, but the biblical writers are more concerned to lead us to acknowledge him, and worship and thank him as our generous creator. The beauty of the world is just one part of God’s generosity, which is one part of his ‘glory’, which is ‘above the earth and the heavens’. Isaiah in his soaring poetry has it like this:

Who has measured the waters in the hollow of his hand,
or with the breadth of his hand marked off the heavens?
Who has... instructed him as his counsellor?
Whom did the LORD consult to enlighten him,
and who taught him the right way?...
He sits enthroned above the circle of the earth and its people are like
grasshoppers...
Lift up your eyes and look to the heavens:
Who created all these?
He who brings out the starry host one by one,
and calls them each by name...
Do you not know?
Have you not heard?
The LORD is the everlasting God,
the Creator of the ends of the earth.
He will not grow tired or weary,
and his understanding no one can fathom.
He gives strength to the weary
and increases the power of the weak.
(Isa. 40:12-14, 22, 26, 28-29)

The creator God of the Bible is no remote deity. Indeed this passage from Isaiah is also immediately preceded by saying that this God ‘tends his flock like a shepherd: he gathers the lambs in his arms’. Christians are astonishingly told to call him ‘Father’. While we should rejoice to call him Creator and enjoy the benefits of his creation and providence we should not stop there.

Conclusion

The concept of design is only a very small part of the biblical picture of the world and is best put in its place by asking the question: ‘design for what?’ The biblical answer is that all things on earth are created, maintained and planned for the possibility of a life as we know it and in particular for people to live and be in relationship with God. That broader view reminds us of the glory and power of God in creation, but in the Bible the concept of design is really incidental to this larger theme.

What are the practical consequences for scientists? Firstly it reminds us to stop more often to marvel at the amazing universe that we have been given. When we do so our lives and our scientific work are enriched. It is a great stimulus to pursue our work with the excitement that we are finding out more of God’s works.

Secondly, the biblical insights should give us a new humility about our discoveries and the whole scientific enterprise. That is one of the distinctive marks of the Christian. When we give the highest honours to those who have made scientific discoveries, we should more often remind ourselves of Isaiah’s challenge: ‘Whom did the Lord consult to enlighten him?’ (Isa. 40:14). Who in fact invented the genetic code, which you are so proud to have discovered after centuries of scientific effort? These are the kind of reminders that God gave to Job.

Thirdly, when we talk about design in nature we should be careful to point out that this is at best only a tiny aspect of the biblical idea of creation, and even then implicit rather than explicit. Far from being a remote draughtsman who designs things without later involvement, we should always present the biblical creator God as he is, the one who cares for and is intimately involved in every aspect of the created order. As the psalmist writes: 'The Lord is good to all. He is loving towards all he has made' (Ps. 145: 9, 13, 17).

Fourthly, the biblical emphasis should make us more bold when writing or teaching to say more often than we do, how awesomely astonishing and ingenious the created world is. It is not always appropriate to talk about God as Creator in the context of teaching or practising science, but people can still get the message. Professor R.J. Hooykaas, one of the founders and mentors of Christians in Science, used to say that one of his happiest moments was, when teaching on Crystallography in a Communist country, and having made no mention of God or creation at all, he was approached afterwards, privately, by a Russian scientist who said 'I think you must be a Christian.' The sense of wonder and humility before creation displayed by the lecturer in this case had clearly displayed something of the glory of God's created order – in this case in the order displayed by crystals.

The larger picture of God's creative actions is well expressed in Psalm 8, where the writer puts alongside each other the magnificence of the creation and the fact that God does care for people:

O LORD, our Lord,
how majestic is your name in all the earth!...
When I consider your heavens,
the work of your fingers,
the moon and the stars,
which you have set in place,
what is man that you are mindful of him,
the son of man that you care for him?...
O LORD, our Lord,
how majestic is your name in all the earth!
(Ps. 8:1, 3-4, 9)

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Notes

1. Barr, J. *Biblical Faith and Natural Theology*, Oxford: Clarendon Press (1993).
2. Barr, J. *op. cit.*[1], p. 83.
3. Providence has been defined as: The unceasing activity of the Creator, whereby in overflowing bounty and goodwill he upholds his creatures in ordered existence.
4. Calvin, J. *Institutes* Book 1 ch 16
5. The key books are Dembski, W.A., *The Design Revolution*, Downers Grove USA & Leicester UK: IVP (2004); Behe, M.J. *Darwin's Black Box*, New York: Touchstone (1996) and at a more popular level Johnson, P.E. *Darwin on Trial*, Downers Grove: IVP (1991). See also Pennock, R.T.(ed.) *Intelligent Design Creationism and its Critics*, Cambridge, MA: MIT Press (2001) which includes essays by the main Intelligent Design critics and its advocates.
6. e.g. see Pennock, R.T.(ed.) *Intelligent Design Creationism and its Critics*, Cambridge, MA: MIT Press (2001); Johnson, P.E & Lamoureux, D.O. *Darwinism Defeated? The Johnson-Lamoureux Debate on Biological Origins*, Vancouver: Regent College

Publishing (1999); Miller, K.R. *Finding Darwin's God – a Scientist's Search for Common Ground Between God and Evolution*, New York: HarperCollins (1999); Pennock, R.T. *Tower of Babel – the Evidence Against the New Creationism*, Cambridge MA: MIT Press (2000); Dembski, W.A. & Ruse M. *Debating Design – from Darwin to DNA*, Cambridge: CUP (2004); Alexander, D.R. & White, R.S. *Beyond Belief – Science, Faith and Ethical Challenges*, Oxford: Lion (2004).

7. Bradley & Thaxton 'Information Theory and the Origin of life', In Moreland, J.P. (ed.) *The Creation Hypothesis*, Downers Grove USA: IVP (1994).
8. Dembski *op. cit.*[5], pp.181-182.
9. Pascal, B. *The Memorial* (1654).
10. As Kidner points out on Psalm. 111, God's 'works' in the Psalms refers most often to his works in nature, though at other times equally in history. Kidner, F.D. *Psalms, Vol.2*, Tyndale New Testament Series, Leicester: IVP (1975)
11. R. Dawkins *The Ancestor's Tale*, London: Orion Books (2004), p. 558.
12. In Berry, R.J. (ed.) *The Care of Creation*, Leicester: IVP (2000).