

developed, I believe we must interpret the Creator as being that feature of existence that is needed if human existence is to have meaning. This “*Gott an Sich*” which I postulate is unknowable in the same sense as the *Ding an Sich* is unknowable. We can certainly stand in awe of the immanent God who made the anthropic principle possible. Likewise, we can adore the God of emergence who provided the route from the laws of immanence (“the Word”) to flesh (living matter in the most general sense). We have not yet reduced emergence to science, although modern science is in the process of attempting to do so. The evolution of the mind is the least understood part of the theology I have discussed. This evolution does, however, embody transcendence: the ability to manipulate the world for the benefit or detriment of humankind. But transcendence shows no evidence of going beyond the human mind, as would be demanded by most forms of panentheism. Transcendence is the divine in us. To choose good, not evil, is our responsibility.

The religion I have explored promises us nothing beyond our days. It generates an ethics that demands much of us: to do good, to love mercy, and to walk humbly with our fellow humans, who are also expressions of the divine transcendence. It resonates with the ethics of the Abrahamic religions, and yet it does not demand belief beyond what we can ascertain by our investigations.

Articulating God’s Presence in and to the World Unveiled by the Sciences

ARTHUR PEACOCKE

The WORLD is unknown, till the Value and Glory of it is seen;
till the Beauty and the Serviceableness of its parts is considered.¹

Thomas Traherne’s deeply sacramental — and, eventually we shall have to say, “panentheistic” — vision of the world, especially as expressed in the golden prose of his *Centuries*, from which the above epigraph was taken, was historically coincident in England with the quite differently motivated insights of his great contemporary Isaac Newton. Traherne died in 1674, some thirteen years before the publication of the *Principia* gave a defining impetus to the scientific revolution in its modern form, bringing with it the widespread recognition of the universe as lawfully embedding rational principles discoverable by experiment. The implications of Newton’s scheme led his contemporaries, notably Robert Boyle, to envisage the universe in terms of a mechanistic clockwork, and his successors in the eighteenth century to an excessively transcendent perception of God as creating the world, as it were, “outside” of the divine life — in spite of an ancient immanentist strand in Christian theology. Inevitably “creation” came to be seen by many as an event in which God brought into existence (in time) an autonomous world, which was then free to run according to its divinely endowed laws, so that God tended to become the redundant clockmaker, or absentee landlord, of Deism.

Many developments in science itself have led to a radical transformation of that mechanical picture of the natural world; these in turn have led to a profound reconsideration by Christian theists (and others) of how, in the light of the sciences, to conceive of God’s relation to the world as it is now perceived to be and to be becoming.

To discern the direction that must be taken in this new exploration of God's relation to the world, it is necessary briefly to recount the relevant features of the scientific perspectives.

The World of Science

A Synchronic Scientific Perspective

First, the world as it is, in a kind of "still shot." The underlying unity of the natural world is evidenced in its universal embedded rationality, which the sciences assume and continue to verify. In the realm of the very small and of the very large — the subatomic and the cosmic — the extraordinary applicability of mathematics in elucidating the entities, structures, and processes of the world continues to reinforce that it is indeed one world. On the one hand, the early-twentieth-century unification of space-time-matter-energy within one mathematical framework by Einstein anticipated current attempts to unify also the four fundamental forces operating in the world. On the other hand, the diversity of this world is apparent not only in the purely physical — molecules, the earth's surface, the immensely variegated systems of the astronomical heavens — but even more strikingly in the biological world. New species continue to be discovered in spite of the destruction caused by human action.

This diversity has been rendered more intelligible in recent years by an increased awareness of the principles involved in the formation and constitution of complex systems. There is even a corresponding "science of complexity" concerned with theories about them. The natural (and human) sciences more and more give us a picture of the world as consisting of complex hierarchies — a series of levels of organization of matter in which each successive member is a whole constituted of parts preceding it in the series. The wholes are organized systems of parts that are dynamically and spatially interrelated. This feature of the world is now widely recognized to be significant in relating our knowledge of its various levels of complexity — that is, the sciences that correspond to the different levels.

The concepts needed to describe and understand — and also the methods needed to investigate — each level in the hierarchy of complexity are specific to what is distinctive about it. Sociological, psychological, and biological concepts are characteristic of their own levels and quite different from those of physics and chemistry. It is very often the case (but not always) that the properties, concepts, and explanations used to describe the higher-level wholes are not logically reducible to those used to describe their constituent parts. Thus

sociological concepts are often not logically reducible to, that is, translatable into, those of individual psychology (e.g., the difference between communities of more than three, three, and two); psychological concepts are not reducible to those of the neurosciences; biological concepts to those of biochemistry; etc. Such nonreductionist assertions are about the status of a particular kind of knowledge (they are "epistemological"), and are usually strongly defended by the practitioners of the science concerning the higher level of complexity. When the nonreducibility of properties, concepts, and explanations applicable to higher levels of complexity is well established, their employment in scientific discourse can often, but not in all cases, lead to a putative, and then to an increasingly confident, attribution of a distinctive causal efficacy to the complex wholes that does not apply to the separated, constituent parts. It has often been argued that for something to be real, new, and irreducible it must have new, irreducible causal powers. If this continues to be the case for a complex under a variety of independent procedures and in a variety of contexts, then new and distinctive kinds of realities at the higher levels of complexity may properly be said to have "emerged." This can occur with respect either to moving up the ladder of complexity or, as we shall see, through cosmic and biological evolutionary history. This understanding accords with the pragmatic attribution, in both ordinary life and scientific investigation, of the term "reality" to that which we cannot avoid taking account of in our diagnosis of the course of events, in experience or experiments. Real entities have effects and play irreducible roles in adequate explanations of the world.

All entities, all concrete particulars in the world, including human beings, are constituted of fundamental physical entities — quarks or whatever current physics postulates as the basic building constituents of the world (which, of course, includes energy as well as matter). This is a "monistic" view that everything can be broken down into fundamental physical entities and that no *extra* entities are thought to be inserted at higher levels of complexity to account for their properties. I prefer to call this view "emergentist monism" rather than "nonreductive physicalism." In addition to the incoherence in the latter view (notably pointed out by J. Kim),² those who adopt it, particularly in speaking of the "physical realization" of the mental in the physical, often seem to me to hold a much less realistic view of the higher-level properties than I wish to affirm here — and also not to attribute causal powers to that to which the higher-level concepts refer.

If we do make such a commitment about the reality of the emergent whole of a given total system, the question then arises of how one is to explicate the relation between the state of the whole and the behavior of parts of that system at the micro level. The simple concept of chains of causally re-

lated events ($A \rightarrow B \rightarrow C \dots$) in constant conjunction is inadequate for this purpose. Extending and enriching the notion of causality now becomes necessary because of new insights into the way complex systems in general, and biological ones in particular, behave.

It has become increasingly clear that one can preserve the reality, distinctiveness, and causal powers of higher levels relative to lower ones while continuing to recognize that the higher complexes are complex assemblies of the fundamental building blocks currently being discovered by physicists. No new entities are being *added* to the constituent parts for such parts to acquire the new distinctive properties characteristic of the wholes. For example, in the early twentieth century it was proposed that something had to be added to matter to explain the difference between living organisms and the inorganic. Such "vitalism" is now universally rejected by biologists. Even more significantly with respect to human beings, one can affirm the distinctiveness of the language of the "mental" as not, in principle, reducible to that of neurophysiological without asserting the existence of an entity, the "mind," in a realm other than the physical world.

The new challenge then becomes how what we have regarded as physical entities can in the human-brain-in-the-human-body-in-society be so organized to become a thinking self-conscious person. Persons are better regarded, it transpires, as psychosomatic unities with physical, mental, and spiritual capacities — rather than physical entities to which a "mind" and/or a "soul/spirit" has been added. This is in fact the biblical understanding, as H. Wheeler Robinson expressed in a famous epigram: "The Hebrew idea of personality is an animated body and not an incarnated soul."³ Talk about the "soul" or "spirit" of human beings as entities, and especially as naturally immortal ones, no longer represents the best explanation of the emergence of spiritual capacities in the light of what we now know about the kind of complexity that constitutes a human being. Dualism of that kind seems to be incommensurate with any picture of the world consistent with scientific observations. This does not, of course, undermine the reality and validity of mental and spiritual activities and capacities. Those Christians who have affirmed not the natural immortality of the "soul/spirit" but the biblical doctrine of resurrection of the whole person can welcome this development.

A Diachronic Scientific Perspective: The "Epic of Evolution"

The foregoing describes only one way of perceiving the natural world through the sciences. For since the time of Newton and his eighteenth-

century Deist successors, our whole perspective on the world has been transformed through studies in geology, biology, and cosmology — indeed, in all those sciences which may be dubbed "historical" insofar as they are inevitably concerned with the processes that have been occurring in the past throughout the universe, on the surface of the earth, and in its living organisms. By inferring to the best explanation of the succession of states of these systems from the relevant data, we are now possessed with a remarkably coherent picture of the origin and development to the present state of the universe, of planet earth, and of life on the earth. This account is a naturalistic, intelligible, and well-evidenced story of the development over the last 12 billion years or so of the observable universe from a primal concentration of mass-energy expanding with space in time to the present observable universe, including earth. This story joins up with the contemporary epic of evolution which describes how inorganic matter on the earth has acquired the property of self-copying particular patterns in complex structures — and so to be living — and through the processes of natural selection, perhaps supported by some other natural factors facilitating complexification, has generated the multiple diverse forms of past and present living creatures on the earth, including *Homo sapiens*. The general sweep of the story is too well known to need repeating here. But certain features must be stressed, for these were quite unknown until a century and a half ago — or were at the most but dimly intuited — by those who developed classical Christian (and indeed, Muslim and Jewish) theism in relation to the world as it was then understood.

The nexus of causality is unbroken and now requires no *deus ex machina*, no "God of the gaps," to explain inter alia the cosmic development, the formation of planet earth, the transition from inorganic to living matter, the origin of species, and the development of complex brains that have the capacity to be aware. Much remains unknown and obscure, but the sequences are supported increasingly by hard science and new observations that become available as technology enhances the subtlety and power of scientific instrumentation. The picture is one of all-pervasive, incessant change. Although the second law of thermodynamics entails an inexorable overall increase in entropy (and so of randomness and disorder) in the universe as a whole, it is now understood, in terms of both irreversible thermodynamics and stochastic kinetics, how new complex structures can arise even within homogeneous physicochemical systems, especially when they involve a flux of matter and/or energy. In fact, studies of complex systems of many kinds (e.g., sets of lightbulbs, cell formation in liquids, snow crystal growth, gene complexes, immune systems, neural nets, conglomerations of economic centers) show that when certain rules apply to the relationships prevailing between their constituent units, and when there are

fluxes of matter/energy, they can self-organize into surprisingly few and recurring patterns.⁴ Indeed, it is proposed that such factors are involved in the appearance of more complex living organisms.⁵ Through the operation of natural selection favoring those developments which increase descendants' chances of survival, biological evolution evidences a propensity⁶ toward an increase in complexity, information processing and storage, consciousness, sensitivity to pain, and perhaps even self-consciousness, which is a prerequisite for human social development and the cultural transmission of knowledge down the generations. Moreover, the operation of random factors (e.g., mutations in DNA) within the constraints of some wider lawlike system (e.g., the environment exerting a selection effect) is not at all inconsistent with the whole process manifesting purposes, such as those of a creator God.⁷ Yet it is significant for how we understand God as creator to note that this process of "things making themselves" is a purely naturalistic one, built into the very nature of the systems and of their constituents. As T. W. Deacon recently expressed it, "in an evolutionary emergent account of natural 'design,' the creative dynamic is understood to be *immanent* in the world rather than external to it, and this can be extended to subjective issues as well."⁸

The processes of the world by their inherent properties manifest a spontaneous creativity in which new properties emerge. One can even agree with Deacon when he also asserts that

The subjective experience of being a locus of incessant novel self-organised mental activities is consistent with evolution-like emergence of spontaneously ordered neural activity. . . . Emergent phenomena, including subjective states and relationships, are not contingent in form because they are highly constrained by this self-organising holistic dynamic that gives rise to emergence. So, although emergent subjective states and relationships may in some sense be contingent products of the material world, this does not entail that their realised forms are either arbitrary or merely relative.⁹

It is this situation that any understanding of the creativity of God, the giver of existence to all-that-is and all-that-is-becoming, must now take into account — not reluctantly but as a new illumination of the divine activity. It is but a further elaboration and development of the "emergentist monism" which was required in our "synchronic" consideration of the relations within the hierarchies of complexity in the world as it now *is* — and, we now have to add, as it is *becoming*.

These new scientifically originating perspectives on the world, includ-

ing humanity, and on its processes in time urgently press upon us the need for theological reconstruction.

Theological Reconstruction

Clearly the deistic conception of a God external to nature — dwelling in an entirely different kind of space and being of a "substance" sufficiently different that it could not be involved continuously in the created order — does not cohere with these new insights into the world and its processes. As an Anglican theologian expressed it, as long ago as the 1880s, "Darwinism appeared and, under the disguise of a foe, did the work of a friend. . . . Either God is everywhere present in nature, or He is nowhere."¹⁰ Both a later archbishop of Canterbury, Frederick Temple, and Charles Kingsley in *The Water Babies* (1863) could express the idea that "God makes things make themselves."¹¹ Recent concepts of self-organization would indeed have been welcomed by these authors, but unfortunately their insights, although appropriated by many theologians (in Britain, at least) in the earlier part of the twentieth century, were overshadowed by the influence of Barthian neoorthodoxy, with its repudiation of "natural theology" in the midcentury. Today the impact of the perspectives of the sciences impels us to develop further those earlier insights prompted by theological reflection on "Darwinism." The following gives an account of those themes which are becoming prominent and pressing for reconsideration.

Immanence: A Theistic Naturalism

God must now be seen as creating in the world, often through what science calls "chance" operating within the created order, each stage of which constitutes the launching pad for the next. The Creator is unfolding the created potentialities of the universe through a process in which its possibilities and propensities become actualized. God may be said to have "gifted" the universe, and goes on doing so, with a "formational economy" that "is sufficiently robust to make possible the actualization of all inanimate structures and all life forms that have ever appeared in the course of time."¹²

We have to emphasize anew the immanence of God as creator "in, with, and under" the natural processes of the world unveiled by the sciences in accord with all that the sciences have revealed since those debates in the nineteenth century. At no point do modern natural scientists have to invoke any nonnatural causes to explain their observations and inferences about the

past. The processes constitute a seamless web of interconnectedness and display emergence, for new forms of matter and a hierarchy of organization of these forms appear in the course of time. New kinds of realities emerge successively, each with its own specific environment, with its specific boundary conditions, and with specific adjacent possibilities open to it in its specific situation.

Hence there is inexorably impressed upon us a dynamic picture of the world of entities, structures, and processes involved in continuous and incessant change and in process without ceasing. This picture impels us to reintroduce a dynamic element into our understanding of God's creative relation to the world — an element which was always implicit in the Hebrew conception of a "living God," dynamic in action, but often obscured by the tendency to think of "creation" as an event in the past. God has again to be imagined as continuously creating, continuously giving existence to what is new. God is creating at every moment of the world's existence through perpetually giving creativity to the very stuff of the world.

All of this reinforces the need to reaffirm more urgently than at any other time in Christian (and Jewish and Islamic) history that, in a very strong sense, God is the immanent creator creating through the processes of the natural order. The processes are not themselves God, but the *action*¹³ of God as creator. God gives existence in divinely created time to a process that itself brings forth the new — thereby God is *creating*. This means we do not have to look for any alleged extra gaps in which, or mechanisms whereby, God might be supposed to be acting as creator in the living world.

A musical analogy may help: when we are listening to a musical work, say, a Beethoven piano sonata, there are times when we are so deeply absorbed in it that for the moment we are thinking Beethoven's musical thoughts with him. Yet if anyone were to ask at that moment (unseemly interrupting our concentration!), "Where is Beethoven now?" we could only reply that Beethoven-as-composer is to be found only in the music itself. Beethoven-as-composer was or is — for this could have been said even when he was alive — other than the music (he "transcends" it), but his communication with us is entirely subsumed in and represented by the music itself: he is immanent in it and we need not look elsewhere to meet him in that creating role. The processes revealed by the sciences are in themselves God acting as creator, and God is not to be found as some kind of *additional* influence or factor added on to the processes of the world God is creating. This perspective can properly be called "theistic naturalism" and is not Deism redivivus, for it conceives of God as *actively* and (in the light of an analogy developed below) *personally* creating through the processes of the world.

Panentheism

The scientific picture of the world has pointed to a perspective on God's relation to all natural events, entities, structures, and processes in which they are continuously being given existence by God, who thereby expresses in and through them God's own inherent rationality. In principle this should raise no new problems for classical Western theism, which has maintained the ontological distinction between God and the created world. However, classical theism also conceived of God as a necessary "substance" with attributes and posited a space "outside" God in which the realm of the created was located — for one entity cannot exist in another and retain its own (ontological) identity when they are regarded as substances. Hence, if God is also so regarded, God can only exert influence "from outside" on events in the world. Such intervention, for that is what it would be, raises acute problems in the light of our contemporary scientific perception of the causal nexus of the world being a closed one. Because of such considerations, this substantival way of speaking has become inadequate in the view of many thinkers. It has become increasingly difficult to express the way in which God is present to the world in terms of "substances," which by definition cannot be internally present to each other. This inadequacy of Western classical theism is aggravated by the evolutionary perspective which, as we have just seen, requires that natural processes in the world be regarded *as such* as God's creative action.

We therefore need a new model for expressing the closeness of God's presence to finite, natural events, entities, structures, and processes; and we need the divine to be as close to them as it is possible to imagine, without dissolving the distinction between Creator and what is created. It is therefore not surprising that many contemporary theologians,¹⁴ especially those with a scientific background, have resorted to the idea of "panentheism": "The belief that the Being of God includes and penetrates the whole universe, so that every part of it exists in Him, but (as against Pantheism) that His Being is more than, and is not exhausted by, the universe."¹⁵ One recalls the description of God in the speech at Athens attributed to Saint Paul, who is depicted as quoting a Greek poet to the effect that it may be said of God: "in him we live, and move, and have our being."¹⁶ Since God cannot in principle have any spatial attributes, the "in" (Gk. *en*) expresses an intimacy of relation and is clearly not meant in any locative sense, with the world being conceived as a "part of God." It refers, rather, to an ontological relation so that the world is conceived as within the Being of God but, nevertheless, with its own distinct ontology. It is as if the world has a mode of being created by, but distinct from, God. Jürgen Moltmann, drawing on the kabbalistic notion of *zimsum* (meaning a

“withdrawing into oneself”), has argued that this creative act of God involves a self-limitation by Godself.¹⁷ In order to create a world other than Godself and in that sense “outside,”

God must have made room beforehand for a finitude *in himself*. It is only a withdrawal by God into himself that can free space into which God can act creatively. (p. 86, italics added)

God does not create merely by calling something into existence, or by setting something afoot. In a more profound sense he [God] “creates” by letting-be, by making room, and by withdrawing himself. (p. 88)

But if creation *ad extra* takes place in the space freed by God himself, then in this case the reality outside God still remains *in* the God who has yielded up that “outwards” in himself. Without the difference between creator and creation, creation cannot be conceived of at all; but this difference is embraced and comprehended by the greater truth . . . : the truth that God is all in all. (pp. 88-89)

In these quotations in defense of panentheism, Moltmann is clearly using “space” in an ontological sense — as in that vision of Saint Augustine of “the whole creation” as if it were “some sponge, huge but bounded . . . filled with that unmeasurable sea” of God, “environing and penetrating it through every way infinite . . . everywhere and on every side.”¹⁸

The language of Moltmann and the striking image of Saint Augustine both use the “in” (the *en* of “panentheism”) to express the idea of the world, including humanity, as enveloped by God without it losing its true distinctiveness and as a way of intensifying the traditional belief in God’s immanence in the world. It is this kind of panentheism, emphasizing the coinherent presence of God and the world, which I wish to espouse here — rather than one that allows any kind of identity of the world with God, even in the form of the “world as a part of God.” The latter too easily merges into pantheism and weakens the necessary emphasis on God’s ultimate transcendence of all-that-is (the “more than” in that definition of panentheism quoted earlier). The “in” metaphor has advantages in this context over the “separate but present to” terminology of divine immanence in Western classical theism. For God is best conceived of as the circumambient reality enclosing all existing entities, structures, and processes, and as operating in and through all, while being “more” than all. Hence, all that is not God has its existence within God’s operation and Being. The infinity of God includes all other finite entities, structures, and processes; God’s infinity comprehends and incorporates all.

The panentheistic model as propounded here is intended to be consistent with the monist concept that all concrete particulars in the world system are composed only of basic physical entities, and with the conviction that the world system is causally closed. There are no dualistic, no vitalistic, no supernatural levels through which God might be supposed to be exercising *special* divine activity. In this model the proposed kinds of interactions of God with the world system would not be from “outside” but from “inside” it. That’s why the world system is regarded as being “in God.”

These panentheistic interrelations of God with the world system, including humanity, I have attempted to represent in the figure on page 148. This is a kind of Venn diagram representing ontological (including logical) relationships; the infinity sign represents not infinite space or time but the infinitely “more” of God’s Being in comparison with everything else. The diagram has the limitation of being in two planes so that the “God” label appears dualistically to be (ontologically) outside the world; although this conveys the truth that God is “more and other” than the world, it cannot represent God’s omnipresence in and to the world. Arrows have been placed within this circle to signal God’s immanent influence and activity *within* the world. It may also be noted that “God” is denoted by the (imagined) infinite planar surface of the page *on* which the circle representing the world is printed. For, it is assumed, God is “more than” the world, which is nevertheless “in” God. The page underlies and supports the circle and its contents, just as God sustains everything in existence and is present to all. So the larger dashed circle, representing the ontological location of God’s interaction with all-that-is, really needs a many-dimensional convoluted surface not available on a two-dimensional surface — something like Saint Augustine’s sponge? — though we continue to recognize the limitation of this inevitably locative model, as of all others.

In this model there is no “place outside” the infinite God in which what is created could exist. God creates all-that-is *within* Godself. This can be developed into a more fruitful biological model based on mammalian, and so human, procreation. The classical Western concept of God as creator has placed too much stress on the externality of the process — God is regarded as creating in the way the male fertilizes the female from outside. But mammalian females nurture new life within themselves, and this provides a much-needed corrective to the purely masculine image of divine creation. God, according to panentheism, creates a world other than Godself and “within herself” (we find ourselves offering this as the most appropriate image — yet another reminder of the need to escape from the limitations of male-dominated language about God).

A further pointer to the cogency of a panentheistic interpretation of

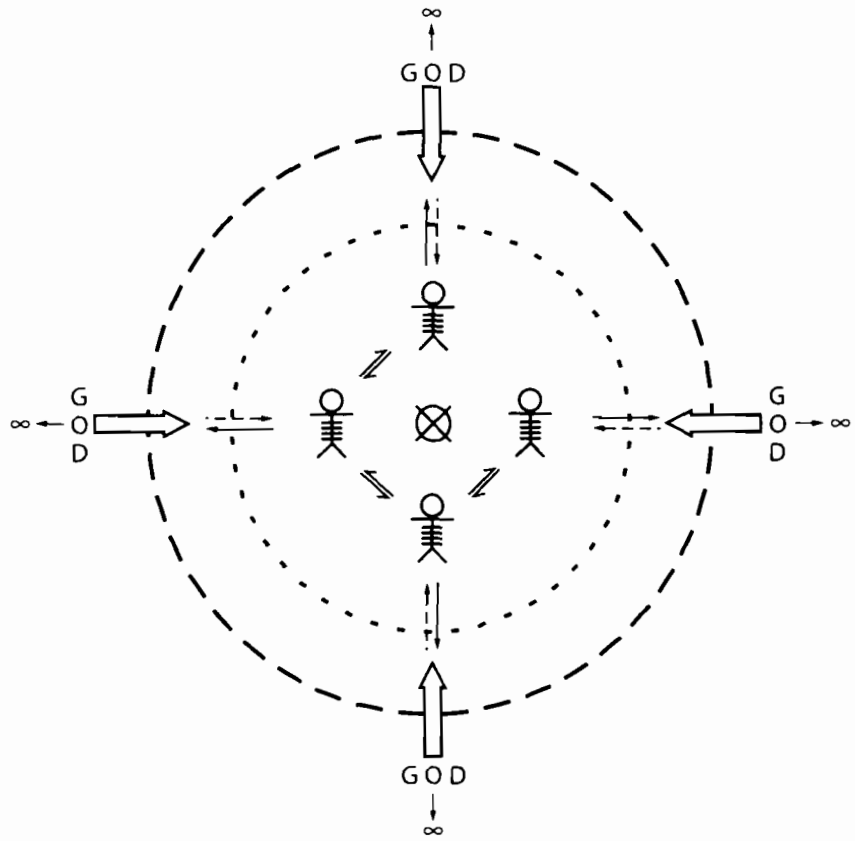
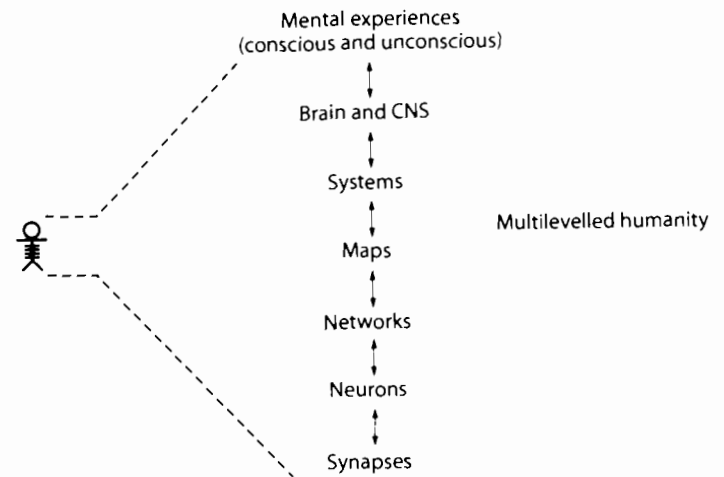


Diagram representing spatially the ontological relation of, and the interactions between, God and the world (including humanity).
 — *Paths from Science towards God: The End of All Our Exploring*
 Arthur Peacocke

God's relation to the world is the way the different sciences relate to each other and to the world they study — the hierarchy of sciences from particle physics to ecology and sociology. The more complex is constituted of the less complex, and all interact and interrelate in systems of systems. It is to this world discovered by the sciences that we have to think of God as relating. The "external" God of classical Western theism can be modeled only as acting upon such a world by intervening separately at the various discrete levels. But if God incorporates both the individual systems and the total system of systems within Godself, as in the pantheistic model, then it is more conceiv-

Key

- GOD God, represented by the whole surface of the page, imagined to extend to infinity (∞) in all directions
- the world, all-that-is: created and other than God, and including both humanity and systems of nonhuman entities, structures, and processes
- ⊙ the human world: excluding systems of nonhuman entities, structures, and processes
- ⇒ God's interaction with and influence on the world and its events
- ⊗ a similar arrow to the preceding one but perpendicular to the page: God's influence and activity within the world
- ⋯ effects of the nonhuman world on humanity
- human agency in the nonhuman world
- ↔ personal interactions, both individual and social, between human beings, including cultural and historical influences



Apart from the top one, these are the levels of organization of the human nervous system depicted in Patricia S. Churchland and T. J. Sejnowski, "Perspectives on Cognitive Neuroscience," *Science* 242 (1988): 741-45.

able that God could interact with all the complex systems at their own holistic levels. God is present to the wholes as well as to the parts.

At the terminus of one of the branching lines of natural hierarchies of complexity stands the human person — the complex of the human-brain-in-the-human-body-in-society. Persons can have intentions and purposes that can be implemented by particular bodily actions. Indeed, the action of the body as a whole in its multiple levels just *is* the intended action of the person. The physical action is describable, at the bodily level, in terms of the appropriate physiology, anatomy, etc., but it also expresses the intentions and purposes of the person's thinking. The physical and the mental are two levels of the same holistic psychosomatic event.

Personal agency has been used both traditionally in the biblical literature and in contemporary theology as a model for God's action in the world. "We" as thinking, conscious persons appear to transcend our bodies while nevertheless remaining immanent in their actions. This psychosomatic, unified understanding of human personhood partly illuminates the use of a panentheistic model for God's relation to the world. For, according to the model, God is *internally* present to all the world's entities, structures, and processes in a way analogous to the way we as persons are present and act in our bodies. This model, in the light of current concepts of the person as a psychosomatic unity, is then an apt way of modeling God's personal agency in the world as in some sense "personal."

As with all analogies, models, and metaphors, qualifications are needed before we too hastily draw a parallel between God's relation to the world and our relation as persons to our bodies. The *first* is that God who, it is being suggested, relates to the world like a personal agent, is also the one who creates it, gives it existence, and infinitely transcends it. Indeed, the panentheistic model emphasizes this in its "more than the world" concept. However, our capacity for intentional (and other) thinking is a natural emergent within the world of brains-in-bodies, and *we* do not create our own bodies.

The *second* qualification of the model is that, as human persons, we are not conscious of most of what goes on in our bodies' autonomous functions such as breathing, digestion, and heart beating. Yet other events in our bodies are conscious and deliberate. So we distinguish between these functions, but this can scarcely apply to an omniscient God's relation to the world — God knows all that it is logically possible to know, hence God's knowledge of the world would include all patterns of events in it, namely: (1) those, relevant to the panentheistic analogy developed here, which are analogous to autonomic functions in human bodies and which constitute God's general providence in continually and actively giving existence to the world's entities, structures, and

processes; and (2) those patterns of events in human bodies that implement particular intentions and may therefore be held to be analogous to any implementation of any particular divine intentions. The separate discussion of how (2) could occur continues intensively,¹⁹ and without any general consensus, but note that both kinds of patterns of events would be observed as natural, meaning here consistent with the scientific accounts. The *third* qualification of the model is that in using human personal agency as analogous to the way God interacts with the world, we are not implying the "world is God's body" nor that God is "a person" — rather that God is more coherently thought of as "at least personal," indeed as "more than personal" (again the "more than" of panentheism). Perhaps we could even say that God is "suprapersonal" or "transpersonal," for there are many essential aspects of God's nature which cannot be subsumed under the categories applicable to human persons.

In my view the panentheistic model allows one to combine a strengthened emphasis on the immanence of God in the world with God's ultimate transcendence over it. It does so in a way that makes the analogy of personal agency both more pertinent and less vulnerable than the Western externalist model to the above distortions of any model of the world as God's body.

The fact of natural (as distinct from human, moral) evil continues to challenge belief in a benevolent God. In the classical perception of God as transcendent and as existing in a space distinct from that of the world, there is an implied detachment from the world in its suffering. This renders the problem of evil particularly acute. For God can do anything about evil only by an intervention from outside, which provokes the classical dilemma of either God can and will not, or he would but cannot: God is either not good or not omnipotent. The God of classical theism witnesses, but is not involved in, the sufferings of the world — even when closely "present to" and "alongside" them.

Hence, when faced with this ubiquity of pain, suffering, and death in the evolution of the living world, one is impelled to infer that God, to be anything like the God who is love in Christian belief, must be understood to be suffering in the creative processes of the world. Creation is costly *to God*. Now, when the natural world, with all its suffering, is panentheistically conceived of as "in God," it follows that the evils of pain, suffering, and death in the world are internal to God's own self: God must have experience of the natural. This intimate and actual experience of God must also include all those events that constitute the evil intentions of human beings and their implementation — that is, the moral evil of human society.

The panentheistic model of God's relation to the world is therefore much more capable of recognizing this fundamental aspect of God's experience of the world. Moreover, the panentheistic feminine image of the world, as

being given existence by God in the very “womb of God,” is a particularly apt one for evoking an insight into the suffering of God in the very processes of creation. God is creating the world from within, and the world being “in” God, God experiences its sufferings directly as God’s own and not from the outside.

In a more specifically Christian perception, God in taking the suffering into God’s own self can thereby transform it into what is whole and healthy — that is, be the means of “salvation” when this is given its root etymological meaning. God heals and transforms from within, as a healthy body might be regarded as doing. The redemption and transformation of human beings by God through suffering is, in this perspective, a general manifestation of what is, for Christians, explicitly manifest in the life, death, and resurrection of Jesus the Christ. In brief, this redemptive and transforming action of God is more congruent with the pantheistic model than with the Western classical externalist interpretation of God’s relation to the world.

Theological Resources for Imaging a Theistic Naturalism and Pantheism

In the foregoing I have been referring to this classical kind of theism as “Western” because it has been dominant in Western Christianity (Roman Catholic, Anglican, Protestant), with some notable exceptions, such as Hildegard of Bingen. But it is the Eastern Christian tradition that is most explicitly pantheistic in holding together God’s transcendence and immanence.²⁰ For example, Gregory Palamas (ca. 1296-1359) made a distinction-in-unity between God’s essence and God’s uncreated energies in the world, and Maximus the Confessor (ca. 580-662) regarded the Creator-Logos as characteristically present in each created thing as God’s intention for it — its inner essence (*logoi*) which makes it distinctively itself and draws it toward God.

I confine myself to mentioning some other threads in the Christian inheritance (East and West) pertinent to articulating God’s presence in the world as expressed in the more abstract concepts of theistic naturalism and pantheism.

The Wisdom (Sophia) and the Word (Logos) of God

Biblical scholars have in recent decades come to emphasize the significance of the central themes of the so-called Wisdom literature (*Job*, *Proverbs*, *Ecclesiastes*, *Ecclesiasticus*, and *Wisdom*). In this broad corpus of writings, the feminine figure of Wisdom (*Sophia*), according to J. G. Dunn, is a “convenient way

of speaking about God acting in creation, revelation, and salvation: Wisdom never becomes more than a personification of God’s activity.”²¹ This Wisdom endows some human beings, at least, with a personal wisdom that is rooted in their concrete experiences and in their systematic and ordinary observations of the natural world — what we would call science. But it is not confined to this and represents the distillation of wider human, ethical, and social experiences and even cosmological ones, since knowledge of the heavens figured in the capabilities of the sage. The natural order is valued as a gift and source of wonder, something to be celebrated. All such wisdom, imprinted as a pattern on the natural world and in the mind of the sage, is but a pale image of the divine Wisdom — that activity distinctive of God’s relation to the world.

That wisdom is an attribute of God, personified as female, has been of especial significance to feminist theologians, amongst whom Celia Deane-Drummond has argued, on the basis of a wider range of biblical sources, that the feminine in God refers to all persons of the Christian triune God and Wisdom (*Sophia*) becomes “the feminine face of God.”²² In the present context, it is pertinent that this important concept of Wisdom (*Sophia*) unites intimately the divine activity of creation, human experience, and the processes of the natural world. It therefore constitutes a biblical resource for imaging the pantheism we have been urging.

So also does the closely related concept of the Word (*Logos*) of God, which is regarded as existing eternally as a mode of God’s own being, as active in creation, and as a self-expression of God’s own being and becoming imprinted in the very warp and woof of the created order.²³ It seems to be a conflation of the largely Hebraic concept of the “Word of the Lord,” as the will of God in creative activity, with the divine logos of Stoic thought. This latter is the principle of rationality as manifest both in the cosmos and in human reason (also named by the Stoics as logos). Again we have a pantheistic notion that unites, intimately, as three facets of one integrated and interlocked activity, the divine, the human, and the (nonhuman) natural. Needless to say, it is significant that for Christians this Logos was regarded as “made flesh”²⁴ in the person of Jesus the Christ.

A Sacramental Universe

The evolutionary perspective recounts in its sweep and continuity over aeons of time how the mental and spiritual potentialities of matter have been actualized above all in the evolved complex of the human-brain-in-the-human-body. The original fluctuating quantum field, quark soup or whatever, has in

twelve or so billion years become a Mozart, a Shakespeare, a Buddha, a Jesus of Nazareth — and you and me!

Every advance of the biological, cognitive, and psychological sciences shows human beings as naturally evolved psychosomatic unities — emergent as persons. Matter has naturally manifest personal qualities — that unique combination of physical, mental, and spiritual capacities. (I use “spiritual” as meaning “relating to God in a personal way.”) For the panentheist, who sees God working in, with, and under natural processes, this unique result (to date) of the evolutionary process corroborates that God is using that process as an instrument of God’s purposes and as a symbol of the divine nature, that is, as the means of conveying insight into these purposes.

But in the Christian tradition, this is precisely what its sacraments do. They are valued for what God is effecting instrumentally and for what God is conveying symbolically through them. Thus William Temple came to speak of the “sacramental universe,”²⁵ and we can come to see nature as sacrament, or at least as sacramental. Hence my continued need to apply the phrase “in, with, and under,” with which Luther referred to the mode of the Real Presence in the Eucharist, to the presence of God in the processes of the world.

Conclusion

With such reflections we begin to touch the hem of the finely spun robe of the Christian claim that the self-expressive, creative Word (*Logos*) that was and is God-in-the-world was incarnate in a historical person, Jesus of Nazareth. The panentheistic framework, upon which I have concentrated as encapsulating my other themes and resources, is very congruent with the affirmation that God-as-Word could be expressed in a human being evolved within the world. For panentheism implies a much tighter coupling between the transcendent God and the created order than in classical theism. The incarnation can thus be more explicitly and overtly understood as the God *in whom the world already exists* becoming manifest in the trajectory of a human being who is naturally in and of that world. In that person the world now becomes transparent, as it were, to the God in whom it exists: the Word which was before incognito, implicit, and hidden now becomes known, explicit, and revealed. The epic of evolution has reached its apogee and consummation in God-in-a-human-person. Indeed, the preceding could be regarded as a footnote to and paraphrase of the Johannine prologue — “In the beginning was the Word, and the Word was with God, and the Word was God. . . . All things came into being through him. . . . What has come into being *in him* was life . . . and Word was made flesh.”

III Theological Perspectives on the God-World Relation

EASTERN ORTHODOX