THE TECHNOLOGICAL FACTOR: REDEMPTION, NATURE, AND THE IMAGE OF GOD

by Peter Scott

Abstract.   This paper begins from the premise that being in the image of God refers humanity neither to nature nor to its technology but to God. Two positions are thereby rejected: (1) that nature should be treated as a source of salvation (Heidegger), and (2) that redemptive significance may be ascribed to technology (Cole-Turner, Hefner). Instead, theological judgments concerning technology require the reconstruction of theological anthropology. To this end, the image of God (*imago dei*) is reconceived in terms of *sociality, temporality,* and *spatiality* to show how humanity may be understood as imaging God in a technological society.

Keywords: image of God; *imago dei*; nature; redemption; sociality; spatiality; technology; temporality; theological anthropology.

GOD, HUMANITY, TECHNOLOGY

Being in the image of God presents the claim that humanity enjoys a likeness or closeness to the being of God (Pannenberg 1985, 20; 1994, 219; Prenter 1967, 251).[1] That is, constitutive of the meaning of the image of God (*imago dei*) is reference to God. In this article, I ask what it means for humanity to be in the image of God in a technological society. Theological interpretation of the image of God is today unpersuasive, I claim, without attention to the factor of technology. Why? In what sense is the technological factor crucial to the contemporary intelligibility of the theological claim that humanity is in the image of God?

Peter Scott is Lecturer in Theology in the School of Theology and Religious Studies, Cheltenham and Gloucester College of Higher Education, P.O. Box 220, The Park, Cheltenham GL50 2QF, U.K. His e-mail address is pscott@chelt.ac.uk. A shorter version of this paper was presented at the European Conference on Science and Theology in April 1998, in Durham, England.

The answer to this question lies in the relation between our concepts of technology and nature. The way we interpret technology is conditioned by the way we interpret nature. Nature, for us, is alterity (Hodgson 1994, 204). Thinking on nature tends either to insist that the otherness of nature, including human embodiment, is being transformed by technology (technological humanity dominates nature) or suggests that on account of its otherness nature may be regarded as the criticism of technology and a source of salvation (the otherness of nature escapes technological control). Broadly, these may be described as *modern* and *countermodern* tendencies. Where does this leave our thinking on the image of God?

First, the technological factor requires the reconstruction of the concept of the image of God in order to acknowledge the transformative aspects of technology. For technology transforms nature, human and nonhuman (Dulap 1984, 231–34; Gramsci 1971, 277–318). Yet here we must be cautious. If technology transforms human nature, *imaging God* does not refer to the redemption of humanity through its technological practices. Being in the image of God refers humanity not to its technology but to God. A modern tendency to consider technology as an instrument for the redemptive transformation of nature must therefore be resisted (Hefner 1993, 238). A truly theological interpretation of the image of God must resist such an instrumentalist view of technology.

Second, nature should not be treated as a source of salvation. By the denial of the instrumentalist view of technology, the countermodern tendency may appeal to the nature on which technological instruments work as the source of a new technology and science. Here the renewal of nature is a source of human hope. Again we must appeal to the assumptions operative in being in the image of God: the image refers to a relationship between humanity and God. This relationship does, I shall suggest later, include nature: image of God (*imago dei*) encompasses image of the world (*imago mundi*) (Moltmann 1985, 51). But the primary reference in the phrase *imaging God* is to God. In rejecting this countermodern tendency, Christian theology holds fast to the view that salvation is from and by God.

The argument begins in the philosophy of technology. I engage the work of Martin Heidegger, Herbert Marcuse, and Jürgen Habermas in the next section and conclude that technological humanity must understand itself as placed in nature and yet deny that nature may function as a pre-technological source of salvation. Considering technology as technique or nature as salvific must be rejected. Neither modern nor countermodern strategies capture our current circumstance.

I then carry these commitments forward into the science-theology debate through a focus on the work of Ronald Cole-Turner and Philip Hefner. In a sharp critique I show that, although Cole-Turner accepts that humanity is being changed through technology, he assigns a redemptive significance to technology through the instrumentalization of Christology and soteri-

ology. In effect, Cole-Turner *modernizes* Christianity. Hefner's position is more complex: neither modern nor countermodern, he treats the image of God as technologically emergent. Yet, through a series of elisions, Hefner confounds nature and technology with redemption.

I then consider the significance of these conclusions for the redemption of nature. I suggest a rather different theological anthropology which might avoid the tendencies towards instrumentalization detected in the work of Cole-Turner and Hefner. Here I express some sympathy for the position maintained by Ian Barbour but also suggest one way in which the process position is weak. The key words proposed in this section for the interpretation of the image of God are *sociality*, *temporality,* and *spatiality*.

I next seek to develop an account of the image of God that is both theological and adapted to the practices of a technological society. I conclude with a plea that judgments concerning technology should always be related to "thick description" in theological anthropology. Thus, how humanity is in the image of God emerges as a crucial test in the criticism of technology.

NATURE AS REDEMPTIVE?

In this section I analyze ways of considering nature and the image of God in relation to technology that are, I think, unhelpful. Interrogating certain aspects of the work of Heidegger, Marcuse, and Habermas, I argue, first, that technology must be seen as located in the social life of humanity. Technology has its place in the active life of humanity as a species-wide interest; nonpraxeological accounts of technology should be resisted. Second, pristine nature is not to be treated as the source of the criticism of technology. Third, if the concept of imaging God is to be persuasive, it must encompass the reconstruction of nature (human and nonhuman) in technology.

Technological practices shape nature—human and nonhuman—for human use. We might expect, then, as Regin Prenter suggests, that philosophical anthropology which is attentive to the theme of technology will understand human being as dominant over nature (Prenter 1967, 246). Yet, in an important essay, Martin Heidegger (1977) makes a sustained attempt to reject this account of human technological preeminence over nature. Technology is not best understood, Heidegger argues, as applied science; the essence of technology is instead the attempt to order the world as "standing reserve"—as available for human use. In a critique of *modern* construals of technology, Heidegger proposes the term *Enframing* to denote a world ordered as standing reserve by and for humanity.

To counter the modern tendency toward Enframing, Heidegger proposes *poiesis*, a mode of engagement that acknowledges a revealing in terms of granting; Being, we might say, "gifts." At the conclusion of his essay on

technology, Heidegger appeals to reflection and art as the places in which a nontechnological understanding of Being may be kept alive.

What is curious about this position, as critics have pointed out, is that Heidegger thereby contrasts technology with poiesis (see Bernstein 1992, 118).[2] All technical objects are mere instances of technique; over against the piety of contemplation, all technology has the same profile. For Heidegger invites only two stances before the revealing forth of Enframing: a *countermodern* rejection of technology that takes the form of poetic meditation or the *modern* affirmation of technological cause and effect. We switch between poetic meditation and the essence of technology. By this means, Heidegger, as Bernstein suggests, seems to have occluded that which lies *between* the practice of poiesis and technology, the realms of the political and the social.

In rather different ways, the work of Herbert Marcuse and Jürgen Habermas (Marcuse 1964; Habermas 1987) replays aspects of the difficulties presented in Heidegger's thinking. I comment only briefly on these. In line with the critical (that is, post-Kantian) commitments of Western Marxism, Marcuse argues that nature is known only by way of the human practices in and through which nature is constituted. However, this critical claim soon hits epistemological buffers, for Marcuse also wishes to maintain that a biological basis of socialism provides a way of showing that the needs of nature (including human nature) are being contradicted (Marcuse 1964, 166–67, 236). Thus, he argues that knowledge of nature is constituted by human practices and yet—inconsistently—appeals to "pure nature'" (see Vogel 1995; 1996). The argument thereby collapses into contradiction: That which is in need of liberation (that is, nature from human interests) cannot also be the basis of human liberation (of humanity by nature).

In a structurally similar argument, Habermas also posits an account of noumenal nature: The practices of science and technology are located not in particular social interests but instead in a trans-social "project of the human species as a whole" (Habermas 1987, 88). One aspect of such a project, Habermas rightly notes, is controlling nature for the support of human life. But, as must be clear by now, Habermas here encounters epistemological problems analogous to those of Marcuse (see Vogel 1995, 28). For nature again has a dual function: as the trans-social basis of the human interest of work and as constituted by human interests. Insofar as one aspect of Habermas's hermeneutics insists that there is no knowledge without interests, Habermas would appear to be denying to his position precisely the knowledge it needs, for that which is *trans*-social cannot be constituted by human *social* interests.

I have presented the work of Heidegger, Marcuse, and Habermas to make three points: (1) although humanity is placed in Nature, this Nature is not a source of salvation or the criticism of technology; (2) technology resides in the life of humanity as social; (3) humanity is being transformed

in and through technology. Thus, the natural dimensions and the active capacities of humanity must be presented in a fashion that offers conceptual space for the emergence of humanity through its technological practices and denies the capacity for salvation by nature.

TECHNOLOGICAL REDEMPTION OF NATURE

I now turn to several theological contributions to the discussion of technology in the science-theology debate. In a critique of the writings of Ronald Cole-Turner and Philip Hefner, I argue that both associate—let me put the matter no more strongly than that—technology with redemption. Thus, the problems noted above regarding nature and image of God reemerge. In the claim that technology is somehow redemptive or may be associated with the redemptive action of God, and is thereby closely related to the being of God, there remains the temptation to consider nature as modernized by technology. I show how two theological interpretations of technology avoid some of the traps encountered earlier in various philosophies of technology (Heidegger, Marcuse, Habermas) but then manage to fall into a theological trap of their own devising.

In *The New Genesis: Theology and the Genetic Revolution* (1993), Ronald Cole-Turner helpfully stresses the plasticity of nature. I strongly endorse his claim that alteration in the biological determinants of human being—which genetic engineering promises—means that we can no longer speak of an unchanging human nature. Technology is altering what it means to be human. To test for human benefit is fraught with difficulty if what is meant by *human* is changing (Cole-Turner 1993, 53). I would add to this the further claim that the presentation of how human beings image God needs to take into account such technological alteration. Yet at the point of identification of the great consequences for human nature and our understanding of it, Cole-Turner offers a very positive assessment of the technology of genetic engineering. If assessments of technology range from the optimistic to the pessimistic and the ambiguous (see Barbour 1992, 3–25), Cole-Turner is an optimist. Furthermore, he offers an explicit *theological* rationale of and validation for his optimism.[3]

"[T]he purpose of genetic engineering is to expand our ability to participate in God's work of redemption and creation," writes Cole-Turner, "and thereby to glorify God" (1993, 51; see also 11). What is the theological reasoning for such a claim? First, we should note that Cole-Turner affirms that humanity is in the image of God (1993, 78): to be in the image of God is to be a creature which, in turn, is to be part of nature. However, Cole-Turner draws no conclusions as to the "shape" of the human from this position. Instead, in his consideration of the technology of genetic engineering he appeals to the dynamic of redemption. If Christians should act in accordance with the will of God, that will is redemptive. Thus, it is to the theme of redemption that Cole-Turner turns to make his case.

Cole-Turner associates the healing miracles of Jesus Christ with the technology of genetic engineering. Epistemic access to God's will for creation is gained through these miracle stories. Cole-Turner argues that these healing miracles provide a theological framework for considering defects in nature: the redemptive actions of God are intended to overcome such defects (Cole-Turner 1993, 81–84). One of the goals of genetic engineering is thereby legitimated theologically: to overcome genetic defects and so relieve human suffering.

Cole-Turner claims to have identified a gap in the goodness of the created order: "There is a moral gap between God's perfect intention and the creation's imperfect condition. It is within this moral gap between God's intention and creation's condition that Jesus healed the sick and fed the hungry" (1993, 93). To underscore the point, Cole-Turner concludes: "Jesus intervened redemptively in nature to bring it into greater conformity with God's intentions" (1993, 93). Yet such a view makes a modern out of Jesus. Indeed, not only is technology here conceived instrumentally, but the technological mindset treats even Jesus of Nazareth as "standing-reserve." Cole-Turner employs technology and redemption instrumentally.

Worse, has not Cole-Turner made an instrument out of salvation?[4] Christ here becomes the means to an end: genetic engineering. The danger of this approach is that salvation is thereby ascribed to a human activity that is somehow attained 'by' Christ—in this instance, Christ the healer. Further, must we not say that Cole-Turner's Christology is primarily concerned with technique? The technique of healing is here the fundamental work of this human creature who seeks to enact the wishes and good pleasure of God.

Thus Cole-Turner presents us with a modernized Christology and the instrumentalization of salvation. To be sure, the pitfall of ascribing salvific significance to nature is avoided. Nor is nature a foe of human beings. But the goodness of creation and the importance of the blessing of life are not strongly articulated in Cole-Turner's work. Indeed, a clear stress on human dominion over nature emerges (1993, 93f.). Yet, in Christian description, is not nature *extra nos* (beyond us) as well as *pro nobis* (for us)? In other words, a theological rendition of creatureliness includes an emphasis on the expansive otherness of nature as the primary context of human habitation. And is not one of Christ's benefits to remind us of this aspect of salvation?[5] In the dialectic between modern and countermodern construals of nature, the interpretation of nature as *extra nos* reminds the human creature that its natural context is a gift of God. In the loss of this important sense in which nature is *extra nos*, salvation is reshaped by a primary (that is, pretheological) determination to modernize and instrumentalize.

A lack of attention to the goodness of creation cannot be detected in the recent work of Philip Hefner (1993; 1995; 1997). In *The Human Factor: Evolution, Culture, and Religion* (1993), Hefner seeks to explore for theol-

ogy the issue of the emergence of humanity from its natural conditions. The heart of this book is an account of biocultural evolution as a way of exploring the emergence of human beings and the presentation of a theology adapted to the task of commenting on such evolution. Hefner explicitly makes the point that he is concerned with a theological anthropology that engages with the emergence of humanity and not only human relations with nature.[6] Theory has concentrated on the latter, Hefner contends, as a way of avoiding thinking through the implications of our emergence from animals that are our kin. Furthermore, the *theological* task Hefner sets for himself in the book is to make the case for the drawing together of nature and grace: the emergence of humanity is itself an occasion of grace; the "functionality" of the human being is to assist in God's purposes for creation (see Hefner 1993, 229–36, 272).

What is especially useful in Hefner's argument —and what joins his account with that of Habermas—is his careful placing of technology in the life of humanity. Hefner stresses that his argument "places technology firmly within the evolutionary processes of the universe, recognizing it as a phase of cultural evolution" (1993, 49; cf. 270). From this perspective, as he asserts later, "Dualisms between technology and nature, or between technology and human nature, would . . . be contradictory" (1993, 266). In such fashion, Hefner locates technology in the sphere of human freedom and decision. Technology is not simply a matter of acquired technique but rather has its origins in the emergent nature of humanity. To engage with the technological factor is to engage with humanity as natural.

However, although technology is described as a competence that is rooted in the human species, the resulting theological anthropology of the "created co-creator" does not attend carefully to the concept of nature that emerges in technology or to the relations between humanity and nature as technologically mediated. Stressing the emergence of humanity from nonhuman nature in *contrast* to humanity's ecological relations with nature downplays the operation of the technological factors in our understanding of nature, human and nonhuman. Hefner notes that "technological civilization" (his term) provides a new context which in turn requires a capacity for wise decision making that currently eludes us (1993, 38). Yet how nature emerges as a theme in technological civilization receives little attention. Although the matter of the coordination between the formation of culture and ecosystems toward the healing of technological civilization is stressed (1993, 153, 226), its impact on the theological anthropology presented here is small.

Hefner's preferred reading of the image of God—"created co-creator"— is, then, disengaged from the long process of the reshaping of humanity in technology. Given that Hefner locates technology in the evolutionary history of humanity, how can this be? I think that the answer lies in an ambiguity in Hefner's argument. For technology is ascribed by Hefner to

the realm of culture. But in relation to technology, *culture* has two senses in *The Human Factor*: as a *concept*, technology is identified, as we have seen, with the life of *humanity*. As a set of *practices*, technology is located in human *culture*.

Thus Hefner's position demonstrates both modern and countermodern tendencies.[7] Locating technology within culture allows him to be a modern: it is the *use* of technology that is important. What we must pay attention to is the decisions that a technological civilization obliges us to make: "The agent in technological civilization is the created co-creator" (1993, 155). As a countermodern, Hefner locates culture in relation to genetic evolution (culture *and* genes), which permits him to say that technology relates to us a graced nature: by the technological factor we are placed in nature. Because Hefner links what is often separated, this appears to be a strong position.

But Hefner misses the fact that this position can be maintained only through semantic differences in the word *nature*. All technology, we are told, is natural (1993, 154–55). But such a naturalization notes only one meaning of nature: "all that is." On this view, all worldly phenomena, as occurrences in nature, are natural. Space travel, cancer, and virtual reality are thereby all natural. Although logically valid, the point is, regrettably, trivial. Hefner implicitly acknowledges this, for when he wishes to stress the direction of technology he emphasizes the cultural location of technology. That is, he corrects his view that technology is best understood as natural. But in stressing the cultural location of technology, he pays little attention to the actual transformation of nature (human and nonhuman) in this technological society.

The ambivalence in the argument—Is technology natural or cultural?—permits Hefner to make a subsequent move. This can be sketched in a series of steps: Historically the image of God functions as a way of drawing nature in relation to God (1993, 238; cf. 47–48, 233); the image of God thus represents nature to God; technology resides in humanity as natural; technology is thereby a part of the representation of nature to God; as located in the image of God, technology ontologically is, and ethically could be, part of the realm of God's purposes; technology is—as culture—part of being a co-creator; thereby technology participates in God's redemptive purposes. The concept of image of God, then, operates to reconfigure the location of technology, which, in turn, ascribes redemptive significance to technological practices.

If I am right about this ambivalence, then we are not presented with an optimistic view of the role of technology: Hefner frequently associates technological society with demonic pathologies. However, notwithstanding Hefner's concerns regarding these demonic pathologies, technology is also related to the redemptive actions of humanity as co-creator. As we have seen, I am not persuaded that technology and redemption should be so

closely associated. Nor are we presented with theological protocols that might guard against understanding technology as redemptive. How, for theology, is the idolatry of technology to be criticized and overcome? To this question Hefner does not supply an answer.

RECONSTRUCTING THE IMAGE OF GOD

Relating these theological contributions to the philosophical discussion above on nature as redemptive, we may detect important strengths. First, Cole-Turner and Hefner affirm that the image of God cannot be understood in abstraction from the technological transformation of humanity. Second, neither appeals to nature as the source of salvation or the criticism of technology. Third, Hefner stresses that technology resides in a species-wide "competence" of humanity.

But a new problem now emerges: the relation between redemption and technology. Having avoided the difficulties posed by the philosophy of technology, the theologians proceed to make the mistake of relating technology to soteriology. We might summarize this point by noting that, insofar as Cole-Turner and Hefner stress *temporality*, both are moderns. That is, both locate technology, conceptually and practically, in the unfolding history of humanity. There is no danger of falling into some Heideggerian meditative pose toward nature. But the matter of how technology reconfigures and reconstructs nature (including human nature) is then related to the theme of redemption: the actions of technological humanity or created co-creator follow God's redeeming actions toward creation and thereby contribute to the fulfillment of the purposes of the redeeming God.

Is technology redemptive? That is, I believe, the basic question that both Cole-Turner and Hefner are pressing. A proper theological response to this matter resides in an adequate elaboration of the concept of image of God. The proposal of Cole-Turner and Hefner must be extended so as to interpret humanity as in the image of God, which offers conceptual space for the human transformation of nature (including human nature) and yet denies the idolatrous pretensions often associated with such efforts at modernization.

One important aspect of technology that needs careful elaboration here is its location in the *sociality*, as well as the temporal becoming, of humanity. That seems clear enough from the positive contribution of Marcuse and Habermas. We have seen that Heidegger's grave error is a failure—through a concentration on poetic meditation—to grasp this point. To be fair, both Hefner and Cole-Turner engage with social aspects of technology. The former insists on the demonic aspects of a technological society; the latter notes how some medical technologies are not developed because pharmaceutical companies believe that a profit could not be made from them. Yet the way technology contributes to the enhancement and the

diminution of the social life of humanity receives little attention. For both Hefner and Cole-Turner, technology can make a positive contribution to the unfolding life of humanity as located in divine purposes. Yet it is also appropriate, I think, to regard the enhancement of the social life of humanity as the enactment of the image of God.

Here the recent work of Ian Barbour (1990; 1992) is instructive. Barbour stresses the centrality of relationships through his presentation of the social self. He presses the social aspect of human life, and his reading of technology focuses on the matter of social justice and the problem of powerful institutions. Barbour thereby offers a metaphysics with theological aspects that permits an account of the anthropological dimensions of technology and the way such technology might support the "expansion" of the blessing of the social life of humanity. However, the weakness of his discussion is that he interprets technology in terms of its effects and status (positive, negative, ambiguous). Placing technology in anthropology is crucial, Barbour rightly notes, but then his treatment of the anthropological location is restricted to the axiological (Barbour 1992, 26ff.).

A further problem with Barbour's position is that an ecological aspect is missing. It is true that he notes that one form of sin is the denial of human relationships with nature (1990, 206). But he does not connect the matter of technology to the (e)coproduction of nature, how humanity relates to its natural conditions. What emerges here is the crucial point that humanity, in addition to being temporal and social, is also *spatial*. If we are to speak of salvation in relation to humanity, the theme of spatiality indicates the placing of humanity in its natural context. More precisely, it indicates the givenness of this context: a way of relating the temporal, social life of humanity toward nature. The natural conditions of human life are part of the givenness of the blessing of God to humanity. Hence, humanity is placed by God in a real, natural context. Technology can, of course, alter this context, but it cannot in truth remove or deny it. Thus, redemption must be associated with neither technique nor nature but rather with the attempt to (re)secure humanity as temporal, social, and spatial.

IMAGING GOD IN A TECHNOLOGICAL SOCIETY:
SOCIALITY, TEMPORALITY, SPATIALITY

Humanity images God in the form of its sociality, temporality, and spatiality. These three marks are the form of God's blessing. In this final section I develop further my account of the image of God by following a clue in the work of Dietrich Bonhoeffer. Although the clue requires both criticism and development, I draw on the work of the German Lutheran theologian to present a theological account of humanity—here set out in categorical, counterfactual form—which denies the association of redemption with nature or technology.

It is to Bonhoeffer that we owe the dazzling innovation of the introduction of the Hegelian concept of sociality into theology (Bonhoeffer 1963). For my purposes, the importance of Bonhoeffer's innovation lies in his reconstruction of the image of God in social terms. In his lectures on Genesis, published as *Creation and Fall* (1959), the exegesis of Genesis 1:26–27 establishes the social character of human life as a feature of God's blessing: the image of God is to be interpreted in terms of *analogia relationis* (Bonhoeffer 1959, 36–37). Bonhoeffer proposes that the created freedom of humanity be understood as the freedom of humanity itself; true creatureliness is thus found in freedom-for-the-other. Only in this precise sense is an analogy between God and humanity operative. There is no part of humanity—no feature, construct, or structure—by which humanity can be likened to God. God's freedom for humanity is the form of the presence of God to which the image of God in humanity conforms. Humanity is in the image of God in the form of the freedom of relation.

Such a reconstruction provides the first clue in the presentation of the concept of image of God in the context of a technological society, for Bonhoeffer denies an idealist conception of self as the self-enclosed, pure cause of technology. If the origins, nature, and direction of technology are to be grasped, then answers will be found in the social life of humanity. To this extent Bonhoeffer agrees with Heidegger, Marcuse, and Habermas. In addition, Bonhoeffer presents the concept of being in the image of God as "natural," that is, as embodied. Human freedom is not the freedom of bodiless beings; freedom operates only in the context of humanity's "total empirical existence." So "creatureliness," "worldliness," and "earthliness" are affirmed in being a human creature before God (Bonhoeffer 1959, 37).[8]

However, although Bonhoeffer stresses the importance of "the natural" to human life, his account of sociality is less well adapted to the presentation of the varied and variable relations between humanity and nature. To remedy such a deficiency, I have proposed that two further theological concepts should be added to a 'thick' description of theological anthropology: temporality and spatiality. Both concepts extend and qualify the concept of sociality.

The concept of temporality has two aspects: the temporality of human sociality and the temporal irreversibility of the universe. In other words, the theme of temporality must be explored anthropologically and cosmologically. Exploring these conditions directs our attention toward a theology of creation. Temporality is a basic feature of the universe. Indeed, we must say that temporality is directed toward creatures.

Anthropologically, the form of temporality is human sociality, part of which comprises the histories of socioethical encounters. The work of the Latin American liberation theologians has stressed the temporality of the social and political life of humanity in creation and salvation. For example, Gustavo Gutiérrez has divided history into three planes of liberation. For

Gutiérrez, liberation has "three levels of meaning: political liberation, the liberation of man throughout history, liberation from sin and admission to communion with God" (Gutiérrez 1974, 176). Although such an analysis must be seen as a welcome attempt to give an account of the development of creation and salvation, the stress on historicity tends to abstract human history from its natural conditions. So it is necessary but not sufficient to stress the created temporality of human sociality.

The concept of temporality can be extended further if we also consider the theme of temporality in cosmological, rather than only anthropological, perspective. Wolfhart Pannenberg has recently stressed the irreversibility of time and the temporality of the universe according to the Big Bang model. Thus, the totality of natural structures is to be understood as enjoying its own form of openness, of receptivity, to the actions of God. (Logically, anthropology cannot fall behind this insight from theological cosmology.) That is, God has a future for nature. Neither fixed by a static metaphysics nor caught up in cycles of endless return, the temporality of nature invites attention to the future of nature.

Spatiality, the third term in this anthropological triumvirate, is critically important, because it gives us a way of relating the temporal social life of humanity to nature. A synchronic as well as diachronic account of sociality is important as a way of offering further detail on the relations between humanity and nonhuman nature. Spatiality refers us to the reality of nature (including humanity) and its givenness by God: the character of humanity's place in its environment. The natural conditions of human life are part of the givenness of the blessing of God to natural humanity. Nature remains God's blessing; thereby it is ordered toward the preservation of the creatures of God and is itself that ordering. Thus, the gift of God's order has elements of continuity and stability. Humanity is placed by God into a real, natural context; the natural conditions of human life are real (however much they may be ignored in practice).

Further, spatiality qualifies the sense in which human beings consider themselves to be at the leading edge of history. In stressing spatiality, humanity is, as Bonhoeffer shows, to be understood as located at the middle of history. For the root of technology's rule over the world lies in the transition from acting as the image of God (*imago dei*) to acting as if it were God (*sicut deus*). We understand our role toward nature separately from God and other human beings; we no longer live from the middle; we recognize no limits. If our current circumstances suggest not so much that we rule the world as that the world rules us, and that technology has become one of the ways in which the world grips and subdues humanity (Bonhoeffer 1959, 38), then part of the response is to stress the spatial placing of humanity. The true exercise of our spatial 'naturalness' must be contrasted with our (failing) attempts to rule the world.

Reconstructing the concept of the image of God in this way helps us resist the temptation to construe theological anthropology as antecedent to our technological society. Furthermore, it may avoid some of the difficulties detected in the philosophy and theology of technology: redemption should be associated with neither technology nor nature. Instead redemption is referred to a different way of construing humanity as image of God: I suggest that humanity is best interpreted as social, temporal, and spatial. All three are crucial aspects of creatureliness. Such a construal of humanity as the image of God takes full and proper account of the technological factor. It thereby denies the idolatry of considering nature or technology as redemptive and yet stresses that the temporal emergence of social, spatial humanity is the form of God's blessing. The redoubling of God's blessing of creaturely human life should thus be sought through human attempts to refound humanity in its practices (including its self-understanding) as social, temporal, and spatial. In the true enactment of such blessing, humanity enjoys a likeness or closeness to God.

NOTES

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1.   In drawing on Pannenberg's work, I do not accept the commitment of his later work, which understands fellowship with God as somehow lifting human persons from their natural and social contexts (see Pannenberg 1994, 176).

2.   In its interpretation of Heidegger's work, my account is deeply indebted to Bernstein's.

3.   In making these judgments, I have also reviewed two privately circulated unpublished papers: Cole-Turner 1996a and 1996b.

4.   According to George Hunsinger (1991, 143f.), Karl Barth warned against such instrumentalization. Cf. Hefner 1995, 126.

5.   Although I do not think that the formulation is persuasive, philosopher Luc Ferry is pressing this point when he stresses the "infinite" character of our present circumstance. See Ferry 1995, 138.

6.   In this regard, Hefner criticizes views that stress the human capacity to improve nature (Hefner 1995, 123).

7.   A slip on one occasion nicely illustrates this point. Characterizing standard interpretations of technology, Hefner notes that sometimes technology is seen as other than nature and humanity, while on other occasions nature and humanity are seen as subordinate to technology (Hefner 1993, 270). What Hefner does not appreciate is that both points turn on an identical claim about the relation between technology and nature.

8.   I offer a detailed presentation of this interpretation in Scott (forthcoming).

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