



## Readings II in Faith & Science

*Publication Year: 2003*

*ID: BK023*

*Note: This book is out of print.  
This is one article from the book. All the articles are available for  
download as pdf's from the ITEST web site. A complete listing of the  
articles available from this book is shown at the end of this document.*

### Issues of Concern

*ID: BK023-031*

Father Robert Brungs, SJ  
Director of ITEST  
Associate Professor (Emeritus) of Physics  
Saint Louis University



**Institute for Theological Encounter with Science and Technology**

Cardinal Rigali Center • 20 Archbishop May Drive • Suite 3400-A • St. Louis, Missouri 63119 • USA  
314.792.7220 • [www.faithscience.org](http://www.faithscience.org) • E-mail: [mariannepost@archstl.org](mailto:mariannepost@archstl.org)

## Issues of Concern

[Robert Brungs, SJ, Director of ITEST, received his AB in Classics from Bellarmine College, Plattsburgh, New York and a PhL. From Fordham University. He earned a PhD in Physics from Saint Louis University and a Licentiate in Sacred Theology (STL) from Woodstock College in Maryland. Father Brungs has served as a consultant for the Vatican Secretariat for Non-Believers and the Committee on Science and Human Values of the National Conference of Catholic Bishops. He has also held consultantships for several other organizations. He is the author of several books dealing with aspects of the faith/science relationship (see for example, **The Vineyard, Scientists in the Church**, co-edited with Eva-Maria Amrhein located on the ITEST website) and many articles on the same topic. He taught physics and theology at Saint Louis University for several years before assuming full time duties with ITEST.]

Many of the issues presently arising out of scientific discovery will introduce significant challenges to both the general society and the church. Perhaps two of the greatest challenges will come from molecular biology and the environmental movement. Both have elements in them that make it clear that they offer positive directions for the future. At their deepest levels, however, they ask the same question that the Psalmist asked 3000 years ago. The answer to that question is of vital concern to all of us, especially to Christians.

The Psalmist asked: "What is man that you [God] should bear a thought for him, the son of man that you should care for him?" It is clear that molecular biology, with its potential for changing the way humans (and plants and animals) are physically constituted, raises significant questions for society and the Church. It is probably less clear how environmental concerns affect us at that level. Since I see it as important an issue as molecular biology, I'll concentrate on it first.

### Environmental Issues

It is clear that there are problems with our behavior, especially our patterns of consumption and waste. We do not have to spend much time developing a list of things that we do and have done badly nor a list of their remedies. These are the least important social and religious aspects of the environmental situation.

Let's look rather to the *ethos* behind various aspects of environmentalism. Animal rights advocates have some ideas (usually not articulated) about the importance, place and role of the human. The same is true of those who are promoting the saving of wetlands and the extending of the wilderness. The ethics involved in such endeavors is worthy of consideration, but I would like to look beyond the ethics of such ventures to the normative principles involved. We'll take the *Wildlands Project* as an example of the kind of thinking that seems to be at the base of all environmental projects.

Very briefly, the *Wildlands Project* looks to returning anywhere from a third to half of the United States to wilderness over the next half century or so. Not all of this wilderness would be in the western part of the United States; much of Florida, for example, would be involved. What change in the western *ethos* we are so accustomed to would have to occur to justify and accomplish such a project? Think about what we grew up believing to be true about *Progress* (especially in science and technology) for example. Think about the history of the development of Europe over the last three millennia and the United States over the last 500 years. Certainly the *Wildlands Project* will have an effect on how and what we think of *Progress*.

Let's look at the very broad sweep of western growth since the beginning of Christianity. Roman culture, for example, was thought to reside in urban centers. Even the vocabulary reveals what the more educated elite felt about even developed rural areas. The English word *pagan* and all that it implies comes from the Latin word *paganus*, which originally referred to country dwellers, to the non-citified. The word *citizen*, of course, bears the opposite meaning. The countryside was an alien place to those who developed the beginnings of a western understanding of mankind. This is the thought-matrix into which Christianity was born and in which it developed.

As far as I know, Christianity is the only one of the great religions that began in an urban society, not in the desert. It has never looked to a “state of nature” as its goal. Christianity has never looked back to the Garden of Eden as its fulfillment. In scripture we learn that even in pre-Christian Judaism the image used to define the end-time, the time of God’s full favor, was the New Jerusalem. Note: that’s a city, not a wilderness. Christianity adopted that idea of God’s final Kingdom. As Christians, we look forward to the New Jerusalem, a “city come down from God as beautiful as a bride adorned for her marriage (to Christ).” Such imagery, I suspect, is more than simply poetry. More than that I don’t know. But, the image of the Final Kingdom as a City is provocative.

After the fall of the Roman Empire the urban culture declined precipitously. After more than a century of “barbarism” the monastic culture began to spread slowly throughout Europe. Without any notion that they were starting to build a new culture, the monks began clearing fields and draining swamps and starting a new agricultural endeavor - mainly for their own sustenance. At the same time they worked to preserve the literary remains of Greek and Roman culture. They developed new technologies (like the clock and various types of farm implements) mainly for their own needs. Their work, along with concurrent economic and political forces, led to the development of cities and of commerce. I don’t want to go deeply into the historical development. I do want to note the vision (mainly religious) that motivated them.

From Jewish and Christian thought, they perceived the human being as the summit of creation. All other creatures were at the service of mankind. This perception is still at the heart of the western understanding of creation. Or, at least, this has been the western understanding until recently. It has certainly guided the social, political and religious wisdom of our culture.

Some (if not much) of the current environmental ethos challenges these perceptions. Whether it rightly or wrongly challenges them is a question for us to ponder. Our first order of business, however, is to realize that this is the basic issue we must face as we move into an age of questioning the presuppositions of our institutions, both secular and religious. Many aspects of environmentalism have taken on religious overtones. I’ll simply point out the almost fundamentalistic fervor of the disciples.

All the prophets of Israel condemned the “high places.” These were sacred places where people worshiped. The worship of the “high places” was condemned even when it was Yahweh who was worshiped there. These were sacred places, places that were holy in and of themselves. The only place where Yahweh was to be worshiped was the Temple in Jerusalem. It was holy as was the Holy City (Jerusalem), not in or of itself, but because it was the Lord’s dwelling place on earth. Things and place, therefore, are holy only in their relation to Yahweh. They are not holy in themselves.

In short, Judaism, and later Christianity, de-sacralized creation. They denied the existence of “spirits” of the place or the thing. Under Judaism and Christianity the gods and goddesses were progressively dislodged. Both religions simply denied that they had any power, that they were real.

Yet, as late as the first century AD, St. Paul in his writings could still excoriate the worship of cosmic forces: “. . . we know that idols do not really exist in the worlds and that there is no god but the One. And even if there were things called gods, either in the sky or on earth - where there seem to be ‘gods’ and ‘lords’ in plenty - still for us there is one God, the Father, from whom all things come and for whom we exist. . .” Paul talks about the “ruler of the air” and evil spirits. But they are not the same as the dryads, oreads, naiads of Greek and Roman forests, fields and streams.

In essence, Christianity maintains that the world is not “holy.” “God alone is holy,” Christ told the rich young man. The world is called to perfection in Christ. It is not perfect; it is stained and broken by sin. It is made subject to decay by God - probably a great gift of God to us who in our sinful state would not be able to abide the sharp edges of sinless reality. Creation is something to be perfected, not to be revered. Man is called to work toward perfection in Christ and in that work bring the creation with him to God.

Some of the organized animal rights groups are built on the premise that animals are at least as important as human beings: they would subscribe to theorist Peter Singer's position that a healthy pig is superior to a sick human. This certainly stands in stark opposition to our customary western notion of ourselves and our position in God's vision for creation. Putting aside as much as half of the continent as a wilderness is built on at least a broadly similar point of view, one that stresses that humans are simply a part of the web of creation and are not essentially more important than any other part.

I defy anyone, however, to show that we humans have been responsible "stewards and artisans of creation." We have exploited the world around us in a greedy fashion. We have tortured the earth itself in a lust for riches or power. We have also done that (are doing it right now) to each other for the same reasons. It is not only the environment we have singled out for our greed and lust for power. Nonetheless, we cannot say that our prime efforts have looked for beautification (do environmentalists really believe we can make creation more beautiful?) of creation along with the satisfaction of our needs. Yet admitting that we have misused and abused creation is not a warrant for saying that we are no more valuable in the scheme of things than an insect - or even a healthy pig.

As I said when I started, it is important that we look at the presuppositions involved in various environmental efforts. Some of them are as political as ecological. Some, at base, are far more radical than they appear on the surface. This is not said to reject them out of hand. But it is a prerequisite if we are to do as good a job as possible in trying to repair some of the damage we have already done and minimize the damage we will do in the future. I am simply asking whether we want to throw away the accumulated wisdom of 3000 years of living. Some (not all) of the environmental premises are anti-anthropocentric, even anti-Christian.

It is, as I said before, a Christian position that humanity is the center and summit of creation. The Second Person of the Trinity became a human being, not a tree, a fish, a mammal or even an angel. St. Paul himself tells us that even the angels learn the fullness of God's design for creation in the Church. He tells us that all creation waits to be freed from decadence; but it waits, not on its own, but along with us.

It would be well to examine the basic positions of both Christianity and the environmental movement with respect to the place and role of humanity in creation. It would be well to do it now rather than later. I suppose one of my greater fears is that we will accept anti-human positions uncritically and be unable to move back easily from actions we have taken. It is only human prudence (and, perhaps, Christian prudence) to assess critically new visions of one or other utopia. I am not condemning the environmental movement or its goals. I am calling for an examination of premises.

I think that's a reasonably scientific approach. It is certainly a reasonable human approach, provided we do not evacuate the process of all human emotion. Let me note that I am frustrated with people either denigrating or avoiding issues because they are emotional issues. The only issues that are really important in life, the issues that "try peoples' souls," are the so-called emotional issues. Long may they "reign."

## **Biotechnology**

Two major forces have united to produce a revolution in "reproductive" biology. The first is cultural. What has occurred culturally to make the procreation of children into merely reproduction? I do not intend to go into the cultural aspects. The second is scientific. I intend merely to list the basic elements of research that have made a difference in the way we look at things.

Starting with contraceptives, we have come over the years to view children merely as the product of reproduction rather than the expression of mutual union. We have "improved" abortion techniques to the point where we can eliminate the natural effects of our sexual liaisons. We can behave irresponsibly sexually without being saddled with children. In the process we have learned a great deal about how the reproductive system works and forgotten a great deal about why it may work that way.

Perhaps the potentially greatest and most important technique in reproductive technology has been in vitro fertilization. In many ways this is the reverse of contraception. With the latter, we can “have sex without making babies”; in the former, we can “make babies without having sex.” More than that, *in vitro* fertilization is important in potential gene replacement techniques. In itself, it may be the most important of all reproductive techniques.

Not all biotechnology, however, is aimed at reproduction. A great deal of it concerns “better things for better living through biology,” through “improvement” of plants and animals. We have entered into the era of making living systems an essential part of our technological repertoire. Combined with new computer techniques (which we can legitimately expect to continue to improve), new and novel plants and animal systems can at least be envisioned. This will have a major impact on how we grow our food and also on our appreciation of what that food may mean for us. It should be remembered that food has meant more in human terms than merely eaten. I am thinking of the conviviality that we associate with even the simplest meals and even with formal occasions. The sumptuous banquet plays an important role in human living.

Right now a great debate is taking place on cloning. It was announced in newspaper a few days ago that the committee established by the President suggested that the cloning of human embryos should be allowed for research. A cloned embryo, they further suggest, should never be implanted in a woman’s womb. This, of course, presumes that the embryo is “only an embryo,” that it is not a human being. We still have some qualms about experimenting on living human beings without “informed” consent, although there is some debate about what truly “informed” consent is.

The Human Genome Project reflects the interest in the genetics of human beings. That Project, now said to be totally completed, sequences the bases and maps the human genome, to elucidate, base pair by base pair, the entire human genome of 2.9 billion pairs. Mapping locates a particular gene within the genome. Many good things will come from this project -- maybe even a cure for cancer some day. At any rate, a great deal of new information about genetics will be garnered.

Why are ethicists concerned about the project when so much good will come from it? They see a downside, a thicket of potentially serious social issues resulting from this knowledge: questions of informed consent, allocation of resources, prenatal diagnosis, selective abortion, privacy and confidentiality, the ownership of knowledge. How will insurance companies, for example, use such knowledge? How will the government itself use it? The Human Genome Project, like all human endeavors, comes as a mixed blessing. There is in life no such thing as a technology or science that is all good, that cannot be used wrongly. The potential problems will be as real as the potential benefits to individuals and the community.

I would suggest a further (and to me a more important) issue. What does this work (and its results) *mean* to individuals, to society, to religion? That is the most significant issue of all. Some molecular biologists are talking about our ability to direct our own biological evolution, about creating a “new human.” While this remains but a gleam in the eye of some biologists, it should concern Christians. How, for example, will this scientific “new human” relate to the “new human” St. Paul writes about? That is a question that we must begin to ponder. Can it be that the maturing of human beings into God finally will mandate that we change ourselves in this way?

Or will such change be proscribed for God’s children. While I am inclined more to the former than to the latter position, it is not to soon to begin to ask these questions.

The discovery of the *ovum* in the last century provided a benefit to our theological appreciation of the Incarnation, more than any theological opinion of the past millennium. Mary contributed of herself to the reality of God’s destiny in the world. All of Christ’s genetic heritage most likely came from her -- except his sex. All of his human relatives came from “her side of the family.” His entrance into our history depended on her. The great Dominican preacher, Vincent McNabb, preached on the finding of Christ in the temple, picturing Joseph and Mary searching for the child in Jerusalem. He described Mary stopping people and asking if they had seen her boy. When they

asked her what he looked like, she replied: “He looks just like me.” Indeed, he must have looked like her. Her egg is the only human contribution to his body.

Consider the fertilized egg that resulted in you, in me, in any one of us. Your mother (my mother) had only one egg (and only one sperm from your father <my father>) that could have resulted in you (in me). Only one egg and only one sperm in the history of the universe could have produced you or me! That is well worth meditating on! The same was true of Christ’s conception. That gives a new dimension to the biblical notion of *kairos*, of the “fitting time.” In my case, or in your case, consider the implausibility of our conceptions: that one egg fertilized by that one sperm. Our ancestors were equally unlikely in their own time -- for thousands and thousands of human generations. The probability that you exist, that I exist, staggers the imagination. All of this religious awareness comes from the scientific discovery of the female ovum (and the male sperm). We can conclude, I believe, that either we are totally trivial or that God really wanted us as we are.

How do these issues (environmental and biotechnological) relate to the Church? How do they relate to a Catholic university? to a secular university? to a state university? Not closely enough, evidently, to be major issues in current higher education. But they represent serious challenges, serious menaces and enormous opportunities for both science and the Church. The “conflict” between science and the Christian faith turns out to be mostly a myth. Conflicts indeed exist between science and theology and between Scientism and the Faith. But it is inconceivable that there be a conflict between God the Creator and God the Revealer.

Conflicts have abounded between science and theology over the centuries. But many of them have turned out to be over bad science or worse theology. The conflict is in our minds, not in the actual creation as-it-is, not in God. Pope John Paul II has probably stated it as succinctly as it can be said:

The Church does not propose that science should become religion or religion science. On the contrary, unity always presupposes the diversity and the integrity of its elements. Each of these members should become not less itself but more itself in a dynamic interchange, for a unity in which one of the elements is reduced to the other is destructive, false in its promises of harmony, and ruinous of the integrity of its components. We are asked to become one. We are not asked to become each other.

Let us return to the suggestion made by Pope Leo XIII more than one hundred years ago that Catholic (Christian) scientists should help philosophers and theologians. In that letter (*Providentissimus Deus*) he encouraged a judicious acceptance of contemporary scientific and historical discoveries, quoting St. Augustine: “Whatever [scientists] can really demonstrate to be true of physical nature, let us show to be capable of reconciliation with our Scriptures.” We’re still attempting to harmonize newly acquired scientific and historical knowledge with traditional teachings of the Church. The Church cannot continue to live in a scientific/technological vacuum. A century is long enough for preliminary bouts and shadow boxing. University professors, students and alumni and “bench scientists” should settle down to the main event.

There are and will be plenty of areas in which there will be disagreements between some scientists and some theologians (and even philosophers). I have named some of them in this essay. Others are mentioned in the following essays in this collection. Still others may occur to you. There will be other disagreements (even strong ones) in the time to come. This is what dialogue is about. If the end result of that dialogue is disagreement, it will be informed disagreement. Each side will have heard the argument presented by the other. There is profit in that arrangement.

Blind prejudice (on either side) has no role to play in looking at things as-they-are. It is to looking at things as-they-are that both science and Faith are called.

## Questions

What application to late 20th century thought has the image of Christianity as an “urban” religion? Discuss the implications of the Wildlands Project in relation to this “urban” religion.

What do advances in biotechnology (cloning, *in vitro* fertilization, sequencing and eventually patenting the human genome) mean to individuals and society? Are these advances all blessing or a mixture of blessing and curse? Discuss.

Discuss Augustine’s statement “Whatever (scientists) can really demonstrate to be true of physical nature, let us show to be capable of reconciliation with our Scriptures.” Does the Church follow that advice in the 20th century? Is the Church open to such thinking? Is the scientific community open to input from the Church? Should they be?

Discuss the Pope’s statement: “The Church does not propose that science should become religion or religion science... We are asked to become one. We are not asked to become each other.” (see text.) Does that imply that the Church wants a complete and absolute separation of the two disciplines? Explain.

<b>Readings II in Faith and Science</b>		
<b>ID</b>	<b>Article Title</b>	<b>Author</b>
BK023-001	Table of Contents	
BK023-002	Foreword	Father Robert Brungs, SJ
BK023-003	Campus Ministry Involvement	Father Vincent E. Krische
BK023-004	A History of Science and Faith	Father William A. Wallace, OP
BK023-005	Letter of Pope John Paul II	
BK023-006	The Church & Scientists: 1977 Synod of Bishops	
BK023-007	Religion and Science: Must There Be A Conflict?	Father William A. Wallace, OP
BK023-008	The Christian Notion of Freedom	Bishop John Sheets, SJ
BK023-009	The Worldview of Genesis 1-11	Reverend Hugh Beck
BK023-010	Contemporary Biotechnology in The Context of Conflicting Theological Perspectives	Donald Demarco, PhD
BK023-011	What is Science? What is Theology?	Sister Carla Mae Streeter, OP
BK023-012	Science/Religion Not on Speaking Terms in Today's World	David Byers, PhD
BK023-013	Neutrality or Alliance	Father Robert Brungs, SJ
BK023-014	Apostleship	Father Robert Brungs, SJ
BK023-015	Science Versus Religion: A Conflict of Ideas or a Clash of Wills	Richard Blackwell, PhD
BK023-016	Some Elements of the Faith/Science Apostolate	Father Robert Brungs, SJ
BK023-017	Some Historical Items	Father Robert Brungs, SJ
BK023-018	And I Will Make You Fishers of Men...	Evelyn Crump, PhD
BK023-019	The Spirituality of The Scientist	Evelyn Crump, PhD
BK023-020	An Intellectual Gap	Father Robert Brungs, SJ
BK023-021	Literalness	Father Robert Brungs, SJ
BK023-022	Praise	Father Robert Brungs, SJ
BK023-023	The Theological Task	Father Robert Brungs, SJ
BK023-024	History and Myth: The Inquisition	Robert P. Lockwood
BK023-025	Galileo and The Catholic Church	Robert P. Lockwood
BK023-026	When Faith and Reason Clash: Evolution and The Bible	Alvin Plantinga, PhD
BK023-027	Christianity and Modern Science	Rudolf Brun, PhD
BK023-028	Reflections on the Mission of a Catholic Scientist	Lucien Morren, PhD
BK023-029	Sociology	William Monahan, PhD
BK023-030	Truth for an Artist	Leonard Buckley
BK023-031	Issues of Concern	Father Robert Brungs, SJ
BK023-032	Environment and the Believer	Father Albert Fritsch, SJ
BK023-033	What Kind of Salvation?	Father Robert Brungs, SJ
BK023-034	Some Environmental Issues	Father Robert Brungs, SJ
BK023-035	The Freelands Project	Father Robert Brungs, SJ
BK023-036	Altered Perception	Father Robert Brungs, SJ
BK023-037	Theologians Visit the Environment	John Kinney, PE, DEE
BK023-038	Consumption of Natural Resources	Gregory Pouch, PhD
BK023-039	Reproductive Biology	Allyson Chavez Larkin, MD
BK023-040	Holistic Sexuality: A Proper Focus for the Scientist	Hanna Klaus, MD, FACOG
BK023-041	Sociobiology: The New Religion	Richard Blackwell, PhD
BK023-042	Animal Research	Father Robert Brungs, SJ

BK023-043	Patenting of Biological Materials	David Saliwanchik, Esq.
BK023-044	The Inner Environment	Robert Z. Greenley, PhD
BK023-045	What are the Possibilities of Human Cloning?	Robert Collier, PhD
BK023-046	Cloning	Father Robert Brungs, SJ
BK023-047	Human Embryonic Stem Cell Research Ethics in The Face Of Uncertainty	Father Kevin Fitzgerald, SJ
BK023-048	Time: The Falsest God Of All	Thomas Sheahen, PhD
BK023-049	Six Magic Numbers in Physics	Thomas Sheahen, PhD
BK023-050	On The Domestication Of Science	John Matschiner, PhD
BK023-051	Chance/Chaos Versus A Planned Design in The Universe: Pointers To God?	Robert Z. Greenley, PhD
BK023-052	Nuclear Waste	Father Robert Brungs, SJ
BK023-053	Seeming Discovery On Mars	Father Robert Brungs, SJ
BK023-054	The Information Superhighway	Bishop Mark Hurley
BK023-055	Is Secular Education Adequate for the Pursuit of Truth in Science?	Robert Z. Greenley, PhD