"Adam (Human), Where Are You?" (Genesis 3:9)

- Ecology, Economy, and the Place of the Human¹

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Introduction

We live at a time when the whole inhabitants of this planet Earth sense the unusual change in the look of the sky. We live at a time when the whole world is suffering from a serious economic crisis which started with the collapse of Wall Street in 2008. In a word, we live in a world that faces a double crisis: an ecologic crisis from climate change and the economic crisis from the fall of neoliberalism. In the face of such a crisis that could lead to the extinction of human beings and the whole planet, there needs to be a change in the theological paradigm that deals with the fundamentals of human thought. Destruction of the earth and life continues because of the incorrect conventional ways that we understand God and ourselves. A wrong God-human-nature paradigm is conniving at our wrongdoings, and thus we need to reconstruct this God-human-nature paradigm by criticizing and deconstructing it.

Climate Change

I live on the Korean peninsula, where we used to have four distinctive seasons. But now the climate of the Korean peninsula is changing into a subtropical climate. The strict cycle of three cold days and four warm days in winter has been broken many years ago, the winters are becoming shorter and the summers longer, and the kinds of fish in the surrounding seas have changed because the temperature of the water has risen. Even more shocking is the fact that the warming of the Korean peninsula is twice as fast as the average pace of the whole world.³ I don't have the exact statistics, but I hear that many countries in this globe are in similar situations. Jesus said, "When evening comes, you say, 'It will be fair weather, for the sky is red,' and in the morning, 'Today it will be stormy, for the sky is red and overcast.' You know how to interpret the appearance of the sky, but you cannot interpret the signs of the times." (Matthew 16:2-3). If Jesus saw us today, I think he would say that the changes in the "appearance of the sky" that we see are exactly "signs of the times."

Climate is the phenomenon that takes place in the process of the earth's energy trying to reach a balance. According to the law of the conservation of energy, some of the energy that reaches the earth from the sun's rays is reflected into space, and some of it is absorbed into the earth and later released. Thus the earth as a

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³ The average temperature of the Korean peninsula has risen by 1.7 degrees Celsius in 96 years from 1912 to 2008, thus the speed of warming in the Korean peninsula is shown to be twice as fast as the world average. (The earth's average temperature rose by 0.74 degrees during the same period.) The climate of the peninsula is becoming a subtropical one -- the winters are 22-49 days shorter, and the summers are 13-17 days longer. (Korean National Institute of Meteorological Research, *Understanding Climate Change II*, published 7 May 2009.)

whole reaches a balance of energy. However, the earth's climate has experienced huge changes even before the intervention of human beings. About 4.5 billion years ago, a gas cloud in orbit 150 million kilometers from the sun condensed and formed earth, and ever since, temperatures on the earth have fallen sharply every few hundred million years and the whole planet has frozen many times. The most recent ice age reached its peak 20,000 years ago, but the earth became warmer and has maintained a temperate climate relatively steadily for the past 10,000 years. Human civilization developed in this period called the alluvial epoch. In this short period we learned to farm crops, tame livestock, invented letters, and developed science and technology. We also formed religions. And yet, when we compare that to the immense history of the life of earth, human civilization may be just a daydream that was formed in the gaps between changes in the earth's climate.

As thus, the earth's climate went through huge changes even before human beings started intervening, but now we are experiencing human-made climate change, or "climate collapse." Since the industrial revolution in the mid-18th century, humankind raised the average temperature of the earth by almost 0.8 degrees Celsius. ⁶ Since the industrial revolution, we have chosen a strategy of economic growth which puts greater materialistic abundance and convenience as the ultimate values. This has been linked with the consumption of energy, namely fossil fuels, which emit carbon dioxide, a major greenhouse gas, and this has become the reason for climate change today. ⁷ People may question whether humans can have an actual impact, as the earth is very big. However, as Albert A. Gore, Jr. said in *An Inconvenient Truth* citing Carl E. Sagan, the earth's atmosphere is very "vulnerable." Even if we refer to Fritjof Capra's concept of the "biosphere," the space that is inhabited by life takes up only a thin layer compared to the size of the whole earth. ⁹ Such "vulnerable" atmosphere and biosphere are collapsing because of human intervention. Tuvalu, the island nation in the south Pacific, will soon disappear into the ocean due to rising sea levels. This shows what the world will have to face – indeed, an 'inconvenient truth.'

⁴ Such drops in temperature were worse than what we can imagine - oceans were frozen hundreds of meters deep and even the tropical regions of today were covered with ice. The last time such a catastrophe that swept out most of the life on earth happened was about 600 million years ago, and even after that ice ages came and went regularly.

The alluvial epoch came after the glaciers formed in the Pleistocene epoch melted, and the period from the Neolithic period to the present are included in this epoch. Human civilization bloomed in the Cenozoic era (6,500 years ago), the Fourth Period (1.8 million years ago), and in the alluvial epoch, which started 8,000 years ago.

Mark Lynas, Six Degrees Could Change the World (Random House Inc., 2008) explains in detail what would happen if the earth's temperature rose by 1 to 6 degrees Celsius. Also refer to the National Geographic's documentary film based on this book.

⁷ Of the primary energy provided to the world in 2005, 35% was from oil, 25.3% from coal, and 20.7% from natural gas, thus fossil fuels accounted for 81.0%. In the Paleozoic era plants were fossilized, capturing energy in them. This 'buried sunshine' is the main force of modern capitalist industrial economy and the main culprit of climate change at the same time.

⁸ The earth's atmosphere is vulnerable, because it is very thin. The atmosphere is comprised of four layers which altogether are 140 kilometers thick, about 1/50 of the earth's radius. However, 80% of the atmospheric gases are in the bottommost layer (the troposphere) which reaches up to 12 kilometers from the ground, and considering the fact that we can breathe only up to 4 kilometers from the ground, the thickness of the troposphere can be compared to "the lacquer on a basketball" - a very thin layer.

⁹ The biosphere, which is the space on earth where life exists, "reaches 5-6 miles into the ocean, and reaches out into the same distance in the atmosphere." (Fritjof Capra, *The Web of Life* (Random House Inc., 1997), 285.

The bigger problem is that we do not have so much time in our hands. The World Environment Crisis Clock already pointed at 9:33 in 2008. The Intergovernmental Panel on Climate Change (IPCC), held in March 2007, warned that unless appropriate responses take place, global warming will cause great catastrophes including floods, droughts, disease and extreme changes in climate. There is not much time for humankind or other living creatures to figure out how to respond to and survive in the extreme changes in climate. We could even say that unless human beings reach a revolution of civilization in the ecological sense within the next 10 years, we will not have a future.

It is important to note here that climate change is a message from nature, calling for the *ecological transformation of capitalist economics*. The issue of the environment is not one that nature itself has created. It is a human-made problem. To be more specific, it is the result of human economic activity. Thus we can find the key to the ecologic crisis in the solution for economic problems. Rosemary R. Ruether, the North American ecofeminist theologian who emphasizes "ecojustice," asserted that the destruction of the earth cannot be stopped by technological corrections, but by reforming all unjust structures. ¹¹ Let us remember that the word "ecology" and "economy" both stem from the Greek word "oikos," which means "one household" or "space of life." They are like the two wheels of a chariot. Sallie McFague, another North American ecofeminist theologian, says that Christians speak of "love, love," but "love without economics is only an empty rhetoric." ¹² The issue of the environment is fundamentally an issue of industry and of structure. The nature of the current ecological problems can be attributed to the economic structure of a capitalist society: mass production and mass consumption. Therefore any theology that is concerned with ecology must include an alternative discussion of the currently destructive human civilization, especially of its economic system and the proposal of a policy alternative in our discussions.

The Fall of Neoliberalism

With the financial crisis of Wall Street in 2008, economic neoliberalism marked its end. This worst financial crisis since the Great Depression of 1929 has shown us once again that the "unregulated market" can always turn into a battlefield of greed and speculation. The shock will last for a long time. And until a new idea to replace neoliberalism appears, the world will go through a tormenting tunnel of uncertainty.

Even when the sub-prime mortgage problems broke out last spring in the Unites States, not many people expected the impact to be so big. The root cause of the crisis was that financial institutions, blinded by the huge gains in the short term, were lending money to people with vulnerable credit status. (They even lent money to accounts of dead people – what a moral hazard!) Still, how did the sub-prime loans which took up only 9% of the whole American mortgage loan market become a monster that would demolish not only the

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¹⁰ The Environment Crisis Clock measures the severity of environment degradation in the world, and it says that we are in the most serious situation since 1992, when the investigations first started. The clock was set at 7:49 in 1992, and is running towards 12 o'clock, which marks the extinction of mankind. In 1997 we had already passed 9:04, a "very unstable situation"; 9:17 in 2006; 9:31 in 2007; and marked 9:33 in 2008. (Seoul Daily, 17 September 2008).

Rosemary R. Ruether, "Toward an Ecological-Feminist Theology of Nature," in *Reading in Ecology and Feminist Theology*, eds. Mary Heather MacKinnon and Moni McIntyre (Sheed & Ward: Kansas City, 1995), 139.

¹² Sallie McFague, Life Abundant: Rethinking Theology and Economy for a Planet in Peril (Minneapolis: Fortress Press, 2001), 195.

United States but also the whole world? That is, paradoxically, because of the "free market" and "cutting-edge financial techniques" that America had been forcing upon the world, calling them the "global standard."

American financial capitalism became full-fledged with the Reaganomics which started in the early 1980s. ¹³ Under the banner of Reaganomics, the investment banks (IBs) that controlled the world economy before the Great Depression of 1929 rose to the center stage of capitalism again. Assisted by developments in computers, mathematics, and engineering, these IBs made things called "derivatives" and raised their size to 50 trillion dollars. They claimed that they had found a new financial technique and were lost in the rapture of "zero risk." They did not hesitate to do dangerous things such as investing borrowed money that was more than a hundred times their own capital. Under the banner of "globalization," American financial capital travelled over national borders unregulated, the money that it raked up became the strength to bolster the U.S. as the strongest nation in the world. There were criticisms, calling such actions "casino capitalism," but such voices were of course ignored. However, the price of self-indulgence and arrogance was much too grave. As we can see in the CDS (Credit Default Swap) of derivatives which ignited the financial crisis in Wall Street last year, ¹⁴ risk has not disappeared in the money game among huge investment banks. It was only tossed along like a ticking time-bomb.

How is wealth created in this capitalist financial system? Interestingly, the international financial system derives wealth by creating debt (liabilities), not value. This means that most of the international financial assets that have been rapidly accumulated are debt. Very interestingly, the current financial system can make wealth without creating real value but by creating debt, ¹⁵ and by increasing the value of existing assets. ¹⁶ In today's world, money is becoming an absolutely abstract thing and the creation of currency is separated from the creation of value. ¹⁷ What does it mean to live as a Christian in this world where wealth, which has become an abstract idea and illusion, multiplies itself by market speculation? What does it mean to believe in God in a world where wealth can be created from no actual value that is needed for production, in other words, creating

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¹³ The world economy has gone through two phases since the Second World War: the golden age of industrial capitalism led by the Bretton Woods institutions up to the early 1970s, and the phase of financial capitalism after the fall of the Bretton Woods system that restricted the international movement of capital and enforced a fixed currency exchange rate. Now we are living in the era of financial capitalism, and neoliberalism is linked to this phase.

¹⁴ A simple CDS model would be when A lends money to B and sells the "right" to be paid back to C and C sells it to D, D to E... in a never-ending cycle. The investor who gets a hold of that right in the end depends on the ability of B (who is not even an acquaintance) to pay back this debt.

even an acquaintance) to pay back this debt.

15 If you want to know more about how the financial system accumulates wealth in the form of a pyramid, read David C. Korten, *When Corporations Rule the World*, (West Hartford, Connecticut: Kumarian Press, Inc., 1995), 267-279.

¹⁶ On October 19th, 1987, the Dow Jones industrial index fell by 22.6% in just one day and investors faced a loss of more than a trillion dollars (enough money to by a thousand aircraft carriers), but this loss did not decrease the supply of food in the world, simply because people cannot eat money. The collapse in the value of the stock market only means that the price at which a right to own a share of a certain company has fallen.

Money is one of the most important human inventions that were made to satisfy our desires, but currency in each of its stages has broken free from the actual value of goods. Since Richard Nixon, then the President of the U.S., declared on August 15th 1971 that the U.S. would not exchange dollars for countries that ask for gold, a dollar turned into nothing but a piece of paper with numbers and pictures printed on it. When computers became widespread, people got rid of paper and made a substitute for that by entering numbers into computers. Although coins and bills are still being circulated, more and more currency deals are being carried out through electronic transfers between computers. As thus, currency is becoming an abstract being and the creation of currency is becoming more and more isolated from the creation of value.

something out of nothing (creatio ex nihilo)? What has believing in God as the creator of the world come to mean in such a world? Has the church even asked itself this theological question? How many Christians can stand without feeling guilty after reading the following quote?

I split my assets into Chinese funds or funds that everyone else was investing in... I got bored listening to explanations about derivatives, so I just made the decision on a whim. I was making profit for a while. When I checked the predicted profits, I had earned more than a few months' interest in just one day. I wasn't interested where that money came from. Whether the Chinese economy was making money by selling cars or by selling bad cement or milk contaminated with melamine, was not what I cared about... Of course I was only an amateur investor too, but I think most people decided to put their money in IBs with big names rather than looking closely at where their profits came from... So the result was, well, the financial crisis that started in the U.S. The feast of profit claimed to be possible even by throwing away the ordinary person's understanding of production and dealing of goods, in other words "making money with money alone" turned out to be just a great fraud. 18

How many people are free from this "great fraud"? When the market was crazily running after unearned income in the name of "financial technique," and when the world was in a frenzy trying to rake profits from changes in the foreign exchange market, how many churches of Christ taught that it is undoubtedly a sin to pass on my suffering to another for my benefit? Did they teach that wealth that didn't come from honest labor is actually a result of exploiting the poor and ecology? Have not Korean churches been preaching that "honest wealth" rather than "honest poverty" is the biblical principle?¹⁹

Dictators of the past ruled their subjects by force. The Mammon of today, called financial capital, controls us with our love for money. Aloysius Pieris, a theologian from Sri Lanka, says that if "freedom from poverty" is not integrated with "freedom that comes from poverty," we cannot win in the battle against Mammon. ²⁰ Jesus said straightforwardly that we "cannot serve both God and Mammon" (Matthew 6:24). Then the first thing we should do to live as believers in the age of the globalization of transnational financial capital must be to turn away from the god of poverty, the Mammon, and turn to the God of life. We need a change of heart, i.e., repentance. We need to be free, spiritually and mentally, from our secret love and cowardly subservience towards the Mammon, i.e., the money god. This is the Christian spirituality that is required in the age of financial capitalism. I believe that such a spirituality of evangelical poverty must be integrated with an ecological spirituality in order for us to take a step towards a new civilization.

Is There an Alternative?

It is easy to criticize, but is there an alternative? To our relief, measures are being strengthened to control the unbridled destructive actions of financial capital. However, we need to break out of the idea that the

¹⁸ Sera Chung, "Opening Pandora's Account," *The Hankyoreh*, 24 September 2008.

¹⁹ Reverend Itae Kim of Korea says that "Judging from the fact that Abraham employed 400 private soldiers to free his nephew Lot who was being held as a prisoner, we can say that he was a 'chaebol' (a big businessman) in modern parlance." and asserts that "If we look closely at the Bible, it emphasizes honest wealth over honest poverty." (Korean Christian Inter-denominational Newspaper, 16 March 2008)

20 Aloysius Pieris, S.J., An Asian Theology of Liberation (Maryknoll, New York: Orbis Books, 1990), 80.

return to Keynesian economics and emphasizing government intervention to the market is the only alternative to the neoliberal economic system. Regaining control over the national market is not a panacea. We need a more radical and realistic alternative. I believe that will consist of (a) the localization of the economy, (b) turning away from the current human civilization based on fossil fuels, and (c) a civilizational transition to eco-economy.

The first alternative to neoliberal globalization is the localization of the economy. This means scrapping the singular expansion-driven global economic model and reorganizing the world economy into small-scale local economies and diversifying them to create equal and mutually beneficial cooperative relationships among them. Some argue that a physically large market is more efficient and more effective for prosperity. But E.F. Schumacher has already criticized such ideas as "gigantism," and stated that reorganizing the world economy to smaller scaled local economies that are less harmful to the environment is a critical task on which the future of human beings depends.²¹ Large-scale market economies are always resource intensive, and the costs rise as the size of the economy grows. The point is that because natural resources are limited, the size of human economic activity must also be controlled within those limits.

The second alternative to the neoliberal economic system is to break away from the current energy civilization that is based on fossil fuels. Climate change, peak oil, and the depletion of resources have been noted as the "global triple crises." ²² In fact, after the collapse of Wall Street, the term "market failure" is used frequently. However, Lester Brown from World Watch Institute reminds us of what a real market failure is. A market failure is a situation where resources cannot be distributed efficiently with the market mechanism. According to Brown, what is collapsing now is not Wall Street but human civilization itself, with its foundation on fossil fuels. The core reason is because the "truth" is not included in the market price of the things we consume. For example, the indirect costs such as global warming or desertification are not reflected in the market price of various petroleum products or meat. The costs that should be reflected in the price of a good are excluded and goods are sold at an unjustified cheap price. Thus the depletion and over-development of resources naturally follows. Since the market sends such wrong messages, we consume more and more oil and meat, and we settle for such a culture. This is the real market failure, says Brown.²³ The problem lies in the fact that somebody must and will pay the price. There is no free lunch! It is only a matter of when and who will be responsible for the costs. But the time to pay the price has already come. In order for us to escape from the current civilization marred by war and violence, we must make a transition from a paradigm based on oil resources that are buried only in certain parts of the world to an energy civilization that depends on sunlight that God sends equally to everyone on earth, and water that takes up 70% of the planet. Indeed, the amount of solar energy that enters the earth in one year is 15,000 times more than the amount of energy that all human beings consume over the same period.

²¹ E.F. Schumacher, Small Is Beautiful: Economics as if People Mattered (New York: Harper & Row, 1973), 36, 67.

Refer to the documentary trilogy by Korea Broadcasting System (KBS) "Homo Oilicus." According to this documentary, the livelihood of human beings today is dependent on oil in every aspect, making us "Homo Oilicus." Experts estimate that the peak of oil production, or "peak oil" was reached in 1971, Oil production has decreased since then, because we have already depleted in only 150 years most of the oil resources that took the earth 150 million years to make.

23 Lester R. Brown, *Plan B 3.0: Mobilizing to Save Civilization* (New York: W.W. Norton & Company, Inc., 2008), *passim*.

Third, the fundamental alternative to neoliberal economics is a transition to an eco-economy. Escaping from the current economic crisis should begin from overcoming the assumptions and economic faith that unlimited economic growth is possible and that economic development equals the end of poverty. Even though they have clashing views on the market and on capitalism, classical liberalism, neoliberalism, Keynesian theory, and Marxism all are fundamentally the same in that they justify endless material progress. In fact, they are all offspring of the Western Enlightenment. The reason why we incorrectly perceived limitless economic development to be possible is because we thought the economy was isolated from nature, and that nature was a substructure of human economy. However, as the ecological economist Herman E. Daly asserts, the economy in its physical dimension "is a substructure of the earth's finite, non-expanding, materialistically closed ecosystem."²⁴ In this view, human economy is included inside the ecosystem (i.e., order of creation). According to Daly, beyond a certain point, economic growth is neither physically possible nor morally desirable. Why is it impossible? It is because humankind has already stepped beyond the bio-physical threshold for growth in terms of the size of the economy long times ago. Why is it not desirable? That is because humanity has already passed the most appropriate size of the economy, past the point where more growth incurs more loss than the value created by growth. As there cannot be a library that does not throw away old books and only buys new ones, eternal economic growth is impossible and must stop at a certain point. In the words of Gandhi, our earth has enough to meet everyone's need, but not enough to satisfy everyone's greed. Thus the solutions for the problem of poverty that were based on quantitative growth that was not even ecologically sustainable have failed. The problem of poverty cannot be solved by quantitative growth, but qualitative development based on a reform of social relationships, such as the realization of distributive justice and suppressing population growth. 25 The goal of economics must not be "unlimited bread" but "enough bread." I believe that this is along the same lines of the teachings of Jesus, who told us to ask for our "daily bread."

Reconstructing "God-Human-Nature"

We live in a world where unlimited growth is impossible. We need to recognize that this world is both biologically and physically limited, and accordingly step out of the human-centered understanding of the world and perceive the creativity and freedom of humans within the integrity of creation. Debates around economic growth are not simply technical in their nature. They bring along with them fundamental changes in our worldview. Thus an ecological alternative economy is not a technical solution but ultimately a moral and

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²⁴ Herman E. Daly, "Sustainable Growth? No Thank You," in *The Case Against the Global Economy and For a Turn Toward the Local* (San Francisco: Sierra Club Books, 1996), 193. According to the first law of thermodynamics, or law of entropy (All matter and energy in the universe does not change. It is not destroyed or created, but it only changes its form), and the second law of thermodynamics (All matter and energy in the universe changes in only one direction: from useful to useless, from orderly to chaotic), the economy in its physical dimension cannot grow forever. Daly asks why this scientific fact has not been applied to the explanation of the economy. (Daly, "On Economics as a Life Science," in *Valuing the Earth: Economics, Ecology, Ethics* (Cambridge, Mass.: MIT Press, 1993), 249, 256ff; Daly, *Beyond Growth: The Economics of Sustainable Development* (Boston: Beacon Press, 1996), 214).

According to Daly, the alternative to growth is not "sustainable growth" or "green growth," but "sustainable development." Daly asserts that "growth" (quantitative expansion) and "development" (an evolution of quality) are two different things and defines sustainable development as "development without growth." (Daly, "Sustainable Growth? No Thank You," 193-195).

religious one. Lynn White Jr. pointed out in his short thesis called "The Historical Roots of Our Ecological Crisis" in *Science* in 1967 that the "severe human-centeredness" of Christianity is the root cause of the ecologic destruction and called for the urgent awakening of modern Christian theology. He said that the current ecological crisis cannot be overcome by the power of science and technology, and that the fundamental solution to this crisis should be religious.²⁶

As a reflection on White's thesis, modern Christian theologians started discussing various ecological issues. The first person to make a significant effort was the Jesuit theologian and scientist Pierre Teilhard de Chardin. He understood the universe as a revelational existence in the form of time and space and focused on healing the divorced state of science and religion. Although he is criticized for being too focused on humans in the process of evolution, and for not understanding the destructive side of human beings and thus too optimistic, he yielded a lot of inspiration and insight to later Christian eco-theologies by taking a step forward from natural philosophy and natural theology to perceiving the universe as a living organism. Following Teilhard de Chardin, a friar of the Dominican Order, Matthew Fox, suggested the idea of creation spirituality. Asserting that if humans do not have the spirituality to respect and fear the universe, then they will not develop a respect and fear for ecology, he shed new light on the traditions of spirituality that were hidden or distorted in the history of Western Christianity. Focusing on four mystics who lived in Germany in the 11th to 13th centuries, ²⁷ he emphasized the "original blessing" rather than the "original sin." ²⁸ Although Fox's concept of creation spirituality is too superficial and oversimplifies various Christian traditions, and thus is not able to explain important issues to the Christian tradition, such as sin and the problem of evil, his ideas can be highly evaluated since they opened a new path for a deeper understanding of God-human-nature in Christian theology. The third flow we must note is the development of eco-theology based on process philosophy. Alfred North Whitehead's process philosophy assumes that all things existing in their fundamental nature are relational, and challenged all dualistic and mechanical ideas. Based on this philosophy, also called organism philosophy, theologians such as John B. Cobb, Jr. and David Griffin developed a theology that emphasizes the mutual linkage within all existence, rejected the traditional male God concept, and emphasized God's responsiveness and sympathy.

The most interesting development along this stream, I believe, is the development of ecofeminist theologies. Since Rosemary R. Ruether first pointed out in 1972 that feminism and ecologic problems are related, feminist theologians asserted that the deeper cause of the ecologic crisis is not anthropo(human)-centrism, but andro(male)-centrism. Ecofeminism recognized that oppression of women and oppression of nature are "twin oppressions" and that the root of such oppression lies in men's dichotomous perception of humans and the world. Reuther says that such a dichotomous worldview is not a Christian one. However, she

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²⁶ Lynn White, Jr., "The Historical Roots of Our Ecological Crisis," *Science* 155 (1967), 1203-1207. He said: "Since the roots of our trouble are so largely religious, the remedy must also be essentially religious."

²⁷ They are Hildegard of Bingen, Mechtild of Magdeburg, Julian of Norwich, and Meister Eckhart. To them, God was not only the Father, but also the Mother. Eckhart described God as a mother giving birth, and Julian compared the universe to the womb of God. One cannot find in these people a dualistic idea that separates spirit and body. Eckhart went so far as to say that the soul loves the body.

²⁸ Fox was silenced for a year by the Vatican in 1988 on charges that he called God "Mother," denied the central importance of the original sin, and praised feminism.

accepts that Christianity has accepted this worldview. Thus contempt of the body and women started from church fathers and spread throughout Christianity. God was perceived as a transcendental being that is "above" us, and as a male being. As a result, a hierarchical dualism perceiving man to be above women was formed. According to the hierarchical chain of being, which chains together "God (good) - angels - men - women - children - animals - plants - earth - evil," God is an immaterial spirit existing at the top of this chain. On the other end, the non-spiritual being at the bottom of the chain is inferior and thus must be controlled by humans. In this structure, man was placed in a higher position than nature, and allowed to treat all other beings as his possessions or resources. In the end, this structure of understanding led to women and nature being perceived as things to be subdued.

Sallie McFague, who represents North American ecofeminist thinkers along with Reuther, developed an eco-theology even further by using a new metaphor. ²⁹ Surprisingly, her new metaphor suggests that the world (or nature) is "God's body." To McFague, God's act of creation was a "bodily event." Thus the universe was born from the womb of God. This is not a manufacture model but a birth model of creation. The manufacture model is static, as it views creation as a final complete state. But the birth model is dynamic, and grows continuously. The universe maintains life, grows and evolves. God "releases the body" of the universe and gives it life, becoming the source of energy for growth. The universe is born from God and is thus God's other self.

In her recent publication that deals principally with climate change, McFague understands climate change as an important theological agenda, ³⁰ and criticizes classical theology's spirit-oriented and otherworldly view on salvation. Classical theology tends to look at the world from a dualistic point of view. It divides the world into two opposing values: spirit/body, God/world, mind/body, etc. In this dualistic hierarchy in which one value is deemed to be higher than the other, God is the supreme being that exists outside of this world at the top of the hierarchy. God is interested only in saving the souls of humans and does not care about anything else. Also, because the world is not our "home" but a "hotel" that we stay in only for a short time, humans can exploit or overuse resources. This worldview has made the human a bystander in the face of the crisis of climate change. What is worse, classical theology's understanding of human beings forms a strange harmony with the perception of humans in classical economics - that humans are personal beings who have desire - and is accelerating the destruction of the ecosystem.

McFague affirms that we now need a more community-based understanding of human beings, in other words, that we need to perceive humans as those who belong to earth. Humans are not the only important beings. Although humans are the self-consciousness of the universe, we are not controllers of the earth who exist

²⁹ McFague believed that the nature of all religious language is metaphoric, and she focused on constructing a notion of God that is appropriate in an era of ecological crisis. The metaphor that McFague speaks of is different from symbol, which requires real participation in what is being indicated, and also different from analogy, which explains the relationship between a part and the whole. Since metaphors have the characteristic of saying "it is, but it is not," they can reject the uncritical identification and allow for a radical imagination which has the power to overturn conventional thought.

³⁰ Refer to Sallie McFague, A New Climate for theology: God, the World and Global Warming (Minneapolis: Fortress Press, 2008).

"above" or "outside of" the earth. Not only do we belong to earth, we are absolutely dependent on its water, food, land, and climate. 31 We exist "inside" earth, along with other living things, and are deeply indebted to them for our existence. Thus McFague makes this meaningful declaration: "God is incarnated in this world." This statement is actually a very radical idea that overturns our existing God-human-nature model. It states that God is incarnated not only in the body of Jesus the Nazarene, but that the whole universe itself is God's bodily existence. According to this understanding of creation as incarnation, God exists in the universe, and humans and all creatures show the existence of God, and thus the suffering of the world is God's own suffering and wound. The idea that creation and incarnation are one has existed ever since the early eras of Christianity (e.g., Origen, Irenaeus, and so on), but McFague, based on Augustine's words, logically proves that creation in Christian theology and the idea of the incarnation are not two different things. 32 To McFague, the world is "the body of God." God and the world are not identical, but she sees the world as the bodily existence of God. What changes, then, does such a change in theological models bring to our lives and faith?

If we understand this world to be God's body then we can meet God "here and now," rather than in the afterlife or in heaven. And if we can meet God in this world then that leads directly to practical issues in our lives. In this sense, feeding the hungry, healing the sick, reducing emissions of greenhouse gas—these things are ways to meet God in this world. Since God exists here on earth, taking care of the earth *is* an act equivalent to loving God. McFague views faith as an affirmation of one's own life that exists in this world. As explained above, recognizing the earth, which is our "space of life (*oikos*)," as the place of God's existence becomes the religious foundation on which to draft a new human civilization. The traditions, conventions, doctrines, and the consequent ideologies of growth can be overcome when we see the world not as a machine but as the body of holy God. By making this transition, we can have the freedom and the spiritual eyes to imagine a new world for us to live.³³

Recovering Cosmic Mysticism

When Galileo Galilei asserted that the earth revolved around the sun in his book *Dialogue* (1632), the church put him on a religious trial and banned his book. (Only 359 years later in 1991 did the Pope publicly apologize for this mistrial.) What is the most important significance that Galilei's theory has on the history of

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³¹ Einstein once predicted that "the earth will perish within four years after honeybees disappear from earth." Honeybees are disappearing from various places in the world in recent years. The exact reason is yet to be discovered, but this phenomenon seems to be related to global warming and the subsequent changes in the ecosystem. If bees disappear, humans lose their food. One third of all the food that humans consume is created through pollination by insects. Among this, 80% is the work of honeybees. Therefore, even in the 21st century with all its information, technology, and knowledge, humans cannot survive without the help of honeybees, which seem so small and insignificant. We are thus connected with all other living things in a great web of life.

³² Jungbae Lee, "Climate Change and the Reconstruction of Theology," 2008, presented at the Korean Christian Ecological Movement's policy seminar.

³³ The resources for theological reflection that climate change suggests are actually quite abundant. For example, we can look at Celtic spirituality, which has its roots from the disciple John, who leaned on Jesus at the last supper and thus heard "God's heartbeat." When we meet God as a being that "exists nearer than our breath," the Christian faith can become an affirmation of life itself, and gratitude for the fact that we live inside this world. We will ultimately come to recognize the earth, the place where humans live, as the place of God's existence. (For a further discussion on this topic, refer to Philip Newell, *Listening for the Heartbeat of God: Celtic Spirituality* (London, U.K.: SPCK, 1997).)

human thought? I believe that it was the move away from earth-centrism and anthropocentrism. Until then, the earth was the center of the universe, and the human was the center of the earth. Galilei said that this was not true. When Charles Darwin published his thesis titled "On the Origin of Species" in 1859, people mocked him, drawing caricatures of his face on the body of an ape. However, what was the significance of Darwin's theory of evolution on the history of human thought? It was also, I believe, the break away from anthropocentrism. Darwin did not argue that humans evolved from apes, nor did he assert the theory of social evolution. The message of Darwin's theory of evolution was that humans were not the "crown of creation" reigning above all other creatures, but that we are only a tiny part of the universe, interlinked with other living beings. The significance of his biological theory of evolution on the history of human thought was that it rejected the traditional Christian understanding of humans as special beings reigning over nature and pointed out that humans lived "inside" and "with" nature. What is important to note here is that this is precisely the original biblical view of human beings and their place in the universe.

Galilei and Darwin wounded the "noble pride" of Western civilization, which believed that the human was at the center of the universe. The Copernican theory banished humans from the center of the universe, and the theory of evolution made us realize that we were not the "crown of creation" but beings connected with all other living beings. Both of them said that humans are not all that special in this immense universe. The church back in those days regarded such claims as blasphemy. However, I believe that Galilei and Darwin's scientific discoveries helped us to find God as s/he is originally portrayed in the Bible. Freedom from anthropocentrism does not diminish faith. Rather, it extends the horizons of Christian faith and enriches it. Only when we break away from earth-centrism can we realize that God is the creator and Lord of the cosmos, not only of human beings; this is, in fact, the lesson from Job in the Old Testament.³⁴ And in this infinite universe, and in the context of the long history of life, the discovery that humans are tiny beings helps us realize the greatness of God. God loves us not because we are the "crown of creation," but God loves us and sheds his/her unlimited grace on us even though we are insignificant beings on the boundaries of the universe.

Modern astronomy shows us that the universe is one entity and invites us to its deep mysteries. Of the many elements that compose our bodies, carbon is the most important. Where does carbon, which is necessary for all forms of life, come from? According to the Big Bang theory, the only elements that could be created in heated space were hydrogen and helium, the most basic elements. Stars, including the sun, have nuclear fusion in their cores, much like a series of hydrogen bomb blasts, and in this process all hydrogen is turned into helium. Thus the temperature of the star's core rises and three atomic nucleuses are fused together into one carbon nucleus. When a star makes such heavy elements through nuclear fusion, it explodes, becomes a supernova, and is scattered into a huge gas cloud called a nebula. Such remnants of stars fused together with hydrogen that was ample in space and formed our solar system about 4 billion years ago. Thus the elements in our bodies such as carbon came from this long process. If the universe is 14 billion years old, and the sun and the earth are 4 billion

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³⁴ We learn from the story of Job's suffering that God's main subject of interest includes all creation; the whole of the universe. In the storm God does not talk about the reason and meaning of the suffering for a righteous man (Job), but about God's creation – the universe.

years old, for 10 billion years after the creation of the universe, stars have made heavy elements and silently prepared for the birth of the earth and all living beings. The stars sacrificed their death so that they could give birth to life. As thus, in order for us to exist, we require the precondition that stars are born, make heavy elements through nuclear fusion, and die as supernova. Then we come to realize that star dust and our bodies are the same. Like the lyrics of a once popular Korean song, "that star is your star" and "that star is my star." That star is my body, and yours. Such awe of the universe is cosmic mysticism. Because we lack this, we destroy the ecosystem (creation) and kill living beings and things. In other words, what destroys the earth's ecosystem is not religion, but the lack of it. We are on a pilgrimage, not away from the universe but with it. We are not lost *in* space, but we are lost *along with* it.

Closing Remarks: "Adam (Human), Where Are You?" (Genesis 3:9)

The British historian Arnold J. Toynbee said that human exploitation of the earth began because of the Christian teaching that human is superior to nature, especially the command of God in Genesis 1:28 to "subdue" the earth and to "rule over" all living creatures. However, "subduing" (kabas) and "ruling over" (rada) does not mean exploiting and controlling nature. When we look at the roots of those words, a more appropriate understanding would be: "labor, serve, protect, and take care of" the earth and creatures. Moreover, in the story of the second creation, or the story of the garden of Eden (Genesis 2:4-3:24), the human is not a ruler of the earth that could conquer and rule over it, but a humble farmer who tills the land. ³⁵ In this story God creates Adam, or human, from Adama, or "the dust of the ground" (thus we can translate Adam to "farmer" and Adama to "farmland"). God did not command humans to rule and conquer, but to "farm" (abad). What is emphasized here is not human's possession or control over the land, but caring for, or managing the land. The human is not the owner of the ecosystem, but ought to be a humble participant and manager of it. This is the biblical view of human beings.

But this Adam hid between the trees away from the face of God, because Adam disobeyed the command not to eat the fruit of the tree of the knowledge of good and evil. Why did God order this prohibition? Wouldn't the almighty and all-knowing God have known that Adam would eat from that tree? Or did God entrap Adam to sin? Although everything was allowed, one thing was prohibited—just one thing. Everything was delegated to Adam, but Adam was given one restriction. One taboo was given to Adam, who was like a king. That drew a clear line, marking who the owner of that garden was. What was the core message of the serpent's temptation? It was that "...... when you eat of it your eyes will be opened, and *you will be like God*, knowing good and evil," (Genesis 3:5 – my emphasis). In a word, Adam was tempted to become God. Adam was allowed everything; and yet, Adam wanted to get rid of the one restriction that reminded Adam that Adam wasn't God. Adam wanted to become the owner of the garden and to possess it forever.

While Adam was hiding after having eaten the forbidden fruit, God called out to Adam: "Where are you?" (Genesis 3:9). In the whole Bible, this is the first question from God to a human being. God was not

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³⁵ For a comparison between the two creation narratives in the book of Genesis 1 and 2-3, refer to Theodore Hiebert, "The Human Vocation: Origins and Transformations in Christian Traditions," in Dieter T. Hessel and Rosemary R. Ruether, eds., *Christianity and Ecology* (Cambridge, Massachusetts: Harvard University Press, 2000).

asking about the geographical or physical location of Adam. God was asking about the place of the human in a theological sense, the place in the relationship between God and human where the human must acknowledge his/her limits. God was calling Adam from a place of greed, where Adam wanted to be the owner and God, to the place where Adam should be: the place of humbleness. The question was directed towards Adam (human/farmer), who dismissed the command to "till the land and protect it" and ran away to the city, the center of civilization, towards accumulation of wealth, comfort, and material affluence, asking where his/her original place was. God asks us the same question today. "Adam (human/farmer), where are you?" God is asking us this question to us humans, who are living in an illusion thinking that we are the owners of this world and nature, and are running towards the extreme of arrogance. Indeed, God's question asks us to think about the issue of life beyond the boundaries of human beings, to define the right to life beyond the rights of humans. After all, it calls upon us to reflect upon God, nature, and human beings beyond the arrogance of modern humanism and beyond the impotence of orthodox theologies which are all the way dualistic.

Abstract

Human beings continue to destroy the earth and life because of their conventional ways of understanding of God, human, and nature. Indeed, a wrong God-human-nature paradigm of thought connives at human wrongdoings. However, in the face of a double crisis today, i.e., the ecological crisis from climate change and the economic crisis from the fall of neoliberalism, the author insists that we need to seek a radical and realistic alternative to present human civilization which is based on fossil fuels and the false belief in unlimited material growth. However, since debates around the ecological and economic crises are not simply technical in their nature, the author also endeavors to draw wisdom from moral and religious heritages, particularly from contemporary theological traditions from Pierre Teilhard de Chardin to ecofeminist theologians like Rosemary R. Ruether and Sallie McFague. Also referring to modern astronomy which shows us that the whole universe is one entity, the author suggests that we need to recover the sense of cosmic mysticism in order to rediscover the right theological place that humankind should stand on in relation to God and nature.

Key words

Ecology, economy, climate change, capitalism, *oikos*, neoliberalism, Great Depression, speculation, market, finance, globalization, money, Mammon, spirituality, alternative, localization, peak oil, energy, eco-economy, growth, development, ecofeminism, creation, incarnation, cosmic mysticism, anthropocentrism, evolution, astronomy, Adam, humanism, orthodox theology