I SHOULD HAVE PAID MORE ATTENTION IN SCIENCE CLASS: CLIMATE SCIENCE AND THE JUSTICE JESUS PREACHED

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There is likely nothing more truthful to say today than that I should have paid more attention in high school science class. I was not the most attentive or studious student . . . That's too bad, because much of what I presently do, as a priest and practicing Christian, involves science.

Faith you see, helps us **navigate the present into the future** . . . and science helps **us understand the present in light of the past with a view to the future.** So how can we understand the present global ecological situation? A few years ago, Paul Kingsnorth, a British environmental analyst, wrote these words:

> Sitting on the desk in front of me are a set of graphs. The horizontal axis of each graph is identical: it represents time, from the years 1750 to 2000. The graphs show, variously, human population levels, CO_2 concentration in the atmosphere, exploitation of fisheries, destruction of tropical forests, paper consumption, number of motor vehicles, water use, the rate of species extinction and the totality of the gross domestic product of the human economy.
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> What grips me about these graphs . . . is that though they all show very different things, they have an almost identical shape. A line begins on the left of the page, rising gradually as it moves to the right. Then, in the last inch or so — around the year 1950 — it suddenly veers steeply upwards . . . The root cause of all these trends is the same: **a rapacious human economy which is bringing the world very swiftly to the brink of chaos**.

If this is one story about "what's going on" here is a more ancient one from the Book of Genesis:

> In the day that the Lord God made the earth and the heavens, when no plant of the field was yet in the earth and no herb of the field had yet sprung up—for the Lord God had not caused it to rain upon the earth, and there was no one to till the ground; but a stream would rise from the earth, and water the whole face of the ground— then the Lord God formed the human from the dust of the ground, and breathed into his nostrils the breath of life; and the man became a living being.
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> And the Lord God planted a garden in Eden, in the east; and there he put the man whom he had formed. Out of the ground the Lord God made to grow every tree that is pleasant to the sight and good for food, the tree of life also in the midst of the garden, and the tree of the knowledge of good and evil.

From a world described in graphs, United Nations scientific reports, observations of extreme weather events and shifting norms of agriculture, from Bill McKibben, Naomi Klein and Stephen Lewis . . . we discover here in contrast, an older, simpler human and male-centred narrative: It describes an environment to which we cannot likely return. It is however one in balance and respectful of limits which are imposed forcefully. There is value in this ancient tale.

We hear other stories, as in the following story told by Bishop Tom Wilmot, the Bishop to the Gold Fields in Perth, Australia. He calls his story A **post-Hubble Creation Narrative.**

The visible universe birthed 13.7 billion years ago is conducive to life as a result of many complex factors, which nuanced one way or another, could have produced a sterile universe, one without life.

The universe is unimaginably large. Our solar system is so big we are never going to leave it. This little blue planet is the only home we are ever going to have. Earth, our home, possesses the right combination of elements for carbon-based life forms. It has a liquid iron core which produces an electro-magnetic shield against cosmic radiation. A habitable atmosphere produced by blue-green algae over a billion years ago, when our oceans were large, stagnant, acidic ponds (NB blue-green algae took the CO^2 by photosynthesis out of the then toxic atmosphere and sequestered it in what we now extract and burn as fossil fuels.

Burning fossil fuels releases this sequestered carbon back into the atmosphere, reversing the chemical process that originally made the planet conducive to life. We have changed the chemical composition of the planet from 280ppm of CO^2 which ice core samples demonstrate has been the ratio for 850,000 years, to 400ppm in the last 150 years. This change has begun a rapid onset 6th Grand Extinction Phase, acidified the oceans again and has set us on a path to several dangerous tipping points to runaway climate change.

We are currently pumping 90 million tons of CO^2 (the equivalent heat energy of 400,000 Hiroshima's) into the air each day."

Another part of our present experience concerns the wonderful benefits given us in and through fossil fuels, upon which we all rely, and which supports the highest standard of living history records, the envy of the poor worldwide. In the book I quoted last week, *All the Light We Cannot See* by Anthony Doerr, we hear a story about . . . coal.

> Consider a single piece glowing in your family's stove. See it, children? That chunk of coal was once a green plant, a fern or reed that lived one million years ago, or maybe two million, or maybe one hundred million. Can you imagine one hundred million years? Every summer for the whole life of that plant, its leaves caught what light they could and transformed the sun's energy into itself. Into bark, twigs, stems. Because plants eat light, in much the way we eat food.
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> But then the plant died and fell, probably into water, and decayed into peat, and the peat was folded inside the earth for years upon years— eons in which something like a month or a decade or even your whole life was just a puff of air, a snap of two fingers. And eventually the peat dried and became like stone, and someone dug it up, and the coal man brought it to your house, and maybe you yourself carried it to the stove, and now that sunlight— sunlight one hundred million years old— is heating your home tonight . . ."

So even if I had paid attention in science class, common understanding of the way things presently are has changed significantly. We are now aware that the benefit of an industrial economy has come at a cost, a huge cost, especially to the poor, to those living in vulnerable areas of the world, to farmers and consumers, energy workers, clergy, to the non-human world, to the forests and essentially to every living thing. And the change is coming so very fast. It's bewildering.

Throughout history, people of faith including Christians have faced uncertain times, with legitimate fear and trembling. In such times the question comes, where is salvation to be found? Howard Snyder, an American evangelical scholar argues that **salvation in our day means Creation Healed**. He takes inspiration from St. Paul who describes the earth itself as groaning, under a weight of physical despair.

> ROMANS 8: For the creation waits with eager longing for the revealing of the children of God; for the creation was subjected to futility, not of its own will but by the will of the one who subjected it, in hope that the creation itself will be set free from its bondage to decay and will obtain the freedom of the glory of the children of God.

If then, in creation we experience the struggle for salvation, we likewise experience and welcome the presence of Jesus, as a redeeming Word made flesh.

> And the Word became flesh and lived among us, and we have seen his glory, the glory as of a father's only son, full of grace and truth. (John 1)

Snyder says there's Good News out there, and the church, people like you and me, can and must share this Good News through what he calls "eco-evangelism."

> "God has given the church a mission for this world and the world to come . . . (I)t means reconciliation between earth and heaven, the heavenly city descending to earth (Revelation 22), the reign of God that **in some way reconstitutes the whole creation through God's work in Jesus**. The model for the new heaven and earth is the actual, historical, flesh-and-blood resurrection of Jesus."

Before we can discover what to say and do **we need to discover what needs to be done**. And here, science leads us, if in no other space than in a continuous series of excellent articles in the Guardian newspaper, available online.

What I didn't do in my high school science class was **the homework**. In our present day, we all have homework to do. It is confusing, sometimes contradictory and controversial work, but the more work I do, the more convinced I am that the critical salvation questions and challenge for myself, for my church and for all people of good will, involves the healing of creation.

So if there is work for us to do, I think it fair to ask what does God do? I like the words of the German Dominican Mystic, Meister Eckhardt (1260-1327)

> "What does God do all day long?
> God lies on a maternity bed giving birth"