

Malthus in the Sky with Diamonds

Linear time has been called an illusion. In this fable it is also the author's indulgence.

by **Diana Hull**

Soon after his death and ascension, cleric Robert Malthus warned the angels in charge of life after life about the really huge number of souls heading toward heaven in the future. So instead of enjoying his "reward" and its wonderful blessings, Malthus despaired for the fate of an already congested firmament, and complained about mid-air collisions and how they were causing irreversible damage to gossamer.

The winged hosts ignored his bad news, were placid, and refused to be ruffled by criticism. In truth, Malthus hadn't been on their "short list" for admission to heaven anyway, because his closely reasoned arguments about the nature of benevolence were resented by some as unflattering to the church.

The charitable didn't want to be told that religion and government interfered too much with the price humans paid for sexual indulgence, especially at an early age — a message as unpopular with the angels above as it was with the sinners below. For frowning upon an excess of "fruitfulness" and the rescue of the impoverished fecund from their folly, Malthus suggested that a variety of well-intended deeds could be doing more harm, in the

long run, than good.

For his unseemly predictions and restrictionist view of reproductive ethics, Malthus was ostracized in heaven by his own co-religionists, by Kings Solomon and Ahab, and by all the Josephs — from Arimathea through Joseph Smith and the Joseph Kennedys I, II and III — by Baptists, Quakers and Orthodox Jews, by Don Juan, by every expired Pope in residence, and by Maria Gonzales Gutierrez and her 78 grandchildren, who had nominated her for the "Santa Barbara Mother of the Year Award."

It was also Malthus' misfortune to be living on the same cloud with Brigham Young and a prior incarnation of Dr. Richard Seed. The Mormon leader and his 57 children never used tax money to provide for their issue, which they said gave them unlimited freedom to breed.

Dr. Seed planned to make human cloning a retirement imperative. Why be victimized by the genetic "dice," was his logical query, when you could buy cells to clone from Rupert Murdoch? With big time earners in the family, an IRA was moot, and who's to say you had to stop at two?

Malthus' effort to limit the supply of "human capital" threatened the inexhaustible power of an unhampered marketplace — a possibility that enraged the Libertarians, hypnotized by the prospects of free flight and desperate to escape the pull of earth's gravity. Also, any suggestion of curbs on population could freeze the ambitions of ethnic minorities, now winning the race toward majority status. For these reasons and more, antagonism to Malthus grew.

His opponents formed the Celestial Pro-Natalist Party under the auspices of the Chamber of Commerce of Carlisle, Iowa, hometown of septuplet mom Bobbie McCaughy. It was a stealth campaign, organized by Opus Dei and paid for by Cary's

Diana Hull, Ph.D. is a behavioral scientist trained in demography and epidemiology. As a Clinical Associate Professor in the Department of Psychiatry at the Baylor College of Medicine in Houston she became interested in the health effects of immigration. Now residing in Santa Barbara, California, she is the co-founder and co-chair of the Santa Barbara County Immigration Reform Coalition. Comments may be addressed to her at: DianaHull@worldnet.att.net

Pharmacy of Dobbs Ferry, New York, who shipped Pergonal, Follistim and Gonal (10 vials for \$625) and four other fertility drugs by Airborne Express at a discount.

While waiting for their next incarnation, the pro-natalists, along with all the angels, endured a heaven that became even smoggier. Labored breathing paralleled reproduction on the "fast track" below, as God's country became a new site for market penetration by a Toronto chain of O, Bars. Soon the angels were seen clutching their bottled water from Calistoga in one hand, and their new nasal canulas in the other.

Anti-Malthusians argued that crowding encouraged migration to the planets and since the universe was ever-expanding, excess bodies and souls were needed to gentrify the abyss. Overpopulation would push innovation, they claimed, as humans redesigned themselves for long-term survival in space.

This entrepreneurial zest, the Libertarians said, would create opportunities without end, because there was room for hundreds of billions more people out there in the void. They were disdainful of Malthus, who didn't view people as the "ultimate resource."

The archangels were not materialistic, but were able to calculate the fuel-cost savings for new take-off locations much closer to heaven and how the demand for halos and scepters would surely increase. It was their idea to hire physicist Freeman Dyson as a consultant, because he was certain that humans could learn to live on a comet.

If there wasn't indigenous life on Mars or Europa, Dyson said, earthlings could import seeds of warm-blooded plants and engineer animals fit to survive in an alien climate. Not to worry — by the end of the 21st century, Dyson assured them, humans would write DNA for trees that would grow into greenhouses big enough for people to live in.

Dyson recommended settlements in the Low Gravity Belt outside the orbit of Neptune. This ring-

shaped region, he estimated, had an area a thousand times bigger than earth. No reason why it couldn't have cultural centers and advanced civilizations. Even planetary *lebensraum* was achievable, according to Dyson, by attaching tethers to neighboring land that was drifting by. And beyond Neptune there was a "still untamed area," Dyson explained, that physicists called the "Oort Cloud."

These possibilities were music to the ears of the

heavenly pro-natalists, who planned for eternity and couldn't have gotten their advice from a more brilliant authority. His assurance that there was no limit to the benefits more people would bring, encouraged a class action lawsuit against Malthus led by heavenly branches of the Open Borders Foundation, and the ACLU. They said his recommendation of late marriage was illegal euthanasia for ova that hadn't signed a "don't resuscitate" document, and that his population concerns exposed him as a

dangerous "anti angel-of-color" extremist.

The protracted litigation delayed Malthus' reincarnation for 200 years and caused him to return to what he thought was a scientifically advanced society where the wisdom of his assertions about population growth and the food supply would surely have been demonstrated already.

Malthus came back to earth in 1961 as Paul Sutton, who became a University of California Geographer. Naturally Paul grew up believing that the impact of too many people on the food supply and other earth resources was the most important subject imaginable. He shared Malthus' astonishment that humans had not trimmed their numbers yet and were still delaying the day of reckoning.

Malthus was reborn into a culture whose pro-natal views were, in some ways, more rigid than those of the 18th century. He didn't know what to make of the political fixation on the pre-fetal product of conception — a view that split political parties and caused mayhem and murder. "It must signify an

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obsessional displacement of blame," Malthus mused, because of the thousands of years humans spent slaughtering innocents.

On the subject of population, Malthus found late 20th century America lost in a "fugue" state, which made it virtually impossible to have a discussion about how many people the earth could sustain.

Quadrupling the world's population in the past hundred years hadn't caused the expected consternation — in fact the increase was cheered in many quarters. Food shortages were blamed on distribution problems and worldwide starvation had been avoided so far, thanks to the genius of the Haber-Bosch synthesis of ammonia and the industrial production of nitrogen fertilizer.

Fritz Haber never met Malthus because, as a maker of explosives, he didn't make it to heaven and was condemned to punishment in the fiery place. But he could have explained that all that smog they were getting in heaven was nitrous oxide acting on fertilizer nitrogen. And he knew that Malthus' predictions were likely to be right, even though his timing was wrong.

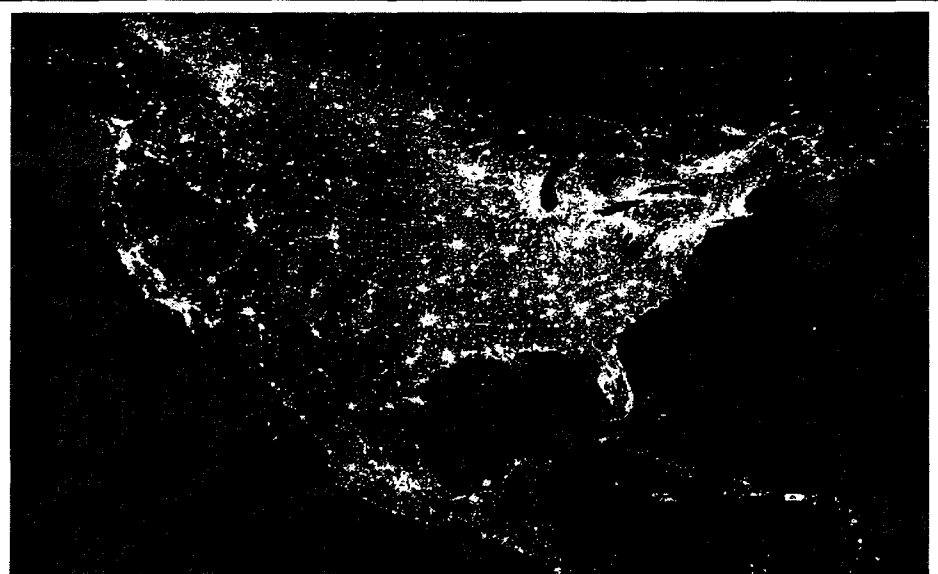
Malthus noticed that even though mass starvation hadn't happened in the way he anticipated, there were still eighty-seven countries that couldn't produce enough food and lacked the money to import it.

Huge swaths of Africa, south of Algeria and north of Zimbabwe, as well as mainland Asia, south of Uzbekistan, were food deficient. So were Afghanistan, Peru, Ecuador and Bolivia. Still, every 20 years, there was another billion more people, while net exporters of food, like the United States, lost three million acres of farmland for every additional 3 million people.

Malthus noticed that the race to feed the world was indeed a stimulus to innovation, but each new

"fix" had a price. So far, so good, he thought, but what about tomorrow? He tried to grasp the mentality of the time he was living in. So he worked out on his new "perfect Buns" exercise machine while he listened to a recording of "Don't Worry, Be Happy" by Bobbie McFerrin, a one-man vocal ensemble, and a musician of the people.

"Don't Worry" applied, for example, to eutrophication — just develop more high yield crops and look to millet and sorghum for salvation. Although eight hundred million people were on the brink of starvation and the land to feed them was limited, the consensus was: don't talk about it and



A Population Map of the U.S. Created by Nighttime Satellite Imagery
Photo by Chris Elvidge of the National Geophysical Data Center
at the National Oceanic and Atmospheric Administration, Boulder CO

"don't worry," because the angels and Professor Dyson will figure it out.

Malthus was skeptical about how this willfully inattentive generation could handle the myriad technical problems of planetary survival, when they had such a hard time calculating how many people would have to be fed tomorrow and whether or not the earth had the resources to do it.

Reincarnated as geographer Paul Sutton, Malthus pursued his research by positioning himself in the sky with a jewel of a computer. He had a view of our globe from one of a very few satellites that

orbited the earth at night, taking pictures in the visible and in the near infra-red. Quite a journey, he thought, from his well-reasoned speculations about population to being part of the U.S. Defense Meteorological Satellite Program.

The first task was to determine how many people there actually were because in so many places the census was very unreliable. The U.S. could spend \$4.5 billion, gathering and processing census

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information — an expense that could never be undertaken by poor countries. India, for example didn't have a clue as to what size population they had. Even China, geographers concluded, likely had half a billion more people than officially reported.

The research that Malthus was doing in his new incarnation used light as a proxy for population. Adjustments were made for lowered energy use depending on the level of development.

Working as Sutton, Reverend Malthus found to his astonishment that scientific miracles, like satellite imagery, were encased in as hard a shell of conceptual and language orthodoxy as the canons of the Anglican Church. Investigators had to apply for grant money from NASA using proxy words for population.

Sutton/Malthus called his project "global change research," even though most "global change" investigators were climatologists who measured the weather. He was disappointed at the equivocation that persisted despite the sophisticated technical jargon of his highly trained colleagues. But he realized he was one of them when he was as comfortable talking about the "parabolic population density decay function," as he had been reciting evening prayers.

In both his incarnations, Malthus was aware that the fundamental agent in global change is human presence and that the number and behavior of human beings drives all the global changes that we

see. But neither NASA nor the Department of Defense wanted anyone to say that too loudly. It could be a problem for them because, as part of government, they would get into a lot of hot water with ethnic lobbies if they even brought it up.

So the result was that in the late 20th century you still couldn't get a grant from the U.S. government to study the environmental effects of increasing world population. Scientists with an interest in this matter had to disguise what they were doing and claim they wanted to study signs of global warming, the acres per minute of deforestation, or the ozone hole — anything, so long as it wasn't population.

Malthus finally remembered why this "gag order" was in place. It was part of the final legal settlement won against him by the Celestial Pro-Natalists and the OBar chain. The judge had issued a blanket injunction against talking, writing or financing anything that might lead to population control. So, unless he wanted to join Fritz Haber in the inferno, he would have to wait for a new panel of judges in the heavenly Court of Appeals.

So Malthus left his earthly body in Santa Barbara and flew skyward. Two hundred years more would tell whether earthlings would trim their numbers, overflow into space, or cannibalize each other and die. He was surer than ever, in 1998, that a catastrophe was brewing that would prevent him from ever enjoying another game of lawn bowling on the grounds of the Crescent Hotel in Bath.

He could hear Freeman Dyson still hawking exotic solutions and seeing opportunity in the coming necessity. He was claiming that living in space was a challenge like scaling Mt. Everest, but forgot to acknowledge that even those mean peaks had base camps equipped with propane heaters and Hersheys.

But nestled in their Barcaloungers, ordinary Americans were not as keen as Freeman Dyson to exchange the camaraderie of the Rose Bowl games for the unfamiliar thrills of life on the Oort Cloud. So, faced with their cowardly intransigence, Freeman Dyson commissioned Richard Seed to begin a wholesale cloning of Edmund Hilary.

Living in space was not for everyone, but for septuplet mom, Bobbie McCaughy, it became a matter of necessity. She was obsessed with Cary's

Pharmacy in Dobbs Ferry, New York and she took her \$2 million in prize money — which was supposed to pay for cribs, car seats and strollers — and made a down payment on a second hand rocket. She was determined to launch Cary's Pharmacy out of the galaxy, with herself stowed way in the belly. She planned to land on one of Neptune's moons, where it would be cold, inhospitable, but ever so quiet.

Malthus had said his goodbyes to the University of California. Ensnared on his perch in a new NASA satellite, he kept an eye on both heaven and earth. He glimpsed the Cato Institute's Julian Simon on the right hand of the angels, and to his left were the Messrs. Archer, Daniels and Midland. That triumvirate now advertised nightly, on the Jim Lehrer News hour, how they planned to "set a table" for 50 billion people. With so many new mouths to feed, they were calling themselves, grandly, "A Supermarket to the Solar System." These interplanetary grocers had everything to gain from the colonizing of space and they were betting on Freeman Dyson.

When the continents finally cracked from the weight of too many people, Malthus became an instant celebrity. That was followed by a struggle for screen rights to the tragedy about who had to stay on the broken earth and who would be airlifted to Pluto.

The winning script was a musical called "Malthus in the Sky with Diamonds" and featured a reincarnation of Marilyn Monroe, singing that *they* and *he* were a girl's best friend. Of course Malthus had tried to be a best friend to everyone, but the powers that be weren't ready to let him.

Malthus spent his time in the sky, writing a new essay about the fate of our precocious but destructive young species. He turned back the reel of history — watching grown-up toddlers build and then tear down their most exquisite constructions, like Dubrovnick and the Parthenon. Flashes of brilliance often shone through the messes they were making and the shame of their abandoned children on the hillsides in Brazil. But Bobbie McFerrin's song "Not To Worry" was still what they were listening to.

So they super-glued the fractured globe and went on acting fearless, immortal and sublimely sure of themselves, though they were actually barely toilet trained and strikingly immature about how childbearing "put the whole world in their hands."

Nostalgia paid off at the academy awards. That classic hymn was converted to "rap" and featured in the score of *Malthus in the Sky with Diamonds*. It gave new life to that tune — one that Malthus kept humming while he waited fretfully through another 200 years, ever-watchful of the increasing emission of visible nighttime light and hoping for the first sign of its dimming, which would mean that humans were finally taking charge of their destiny. TSC

NOTES

1. Even if a miraculous consensus on the need for a population policy were achieved tomorrow, knowledge of the extent and distribution of human populations is presently inadequate. The size of urban clusters, as measured by satellite imagery, has a strong correlation with known populations figures and provides a new way to assess the nature, location and extent of human impacts worldwide and how they contribute to environmental change and agricultural transformation. *From technical papers and personal communication with Paul Sutton.*
2. Every canton in China is given a birth-death ratio quota and a certain amount of money comes to them from the government if they don't exceed their goal. They all claim to meet it. But that doesn't mean that China's population isn't growing. In every canton that has a population increase, local officials claim it is due to in-migration from elsewhere *in China*. This is a closed country, so the population increases can only be due to higher-than-replacement level birth rates. Geographers estimate that the population of China could be ½ billion more than the official figures — off the mark by nearly twice as many people as live in the United States. *Conference report: The American Association of Geographers. 1994.*

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If Malthus Was So Wrong, Why Is Our World In Trouble?

by William R. Catton, Jr.

Minds that have not totally dismissed Malthus may realize that today's serious concern about human-induced global climate change¹ is consistent with an ominously Malthusian inference recently accepted by the authors of an environmentalist classic, the international best-selling book published in 29 languages, *The Limits to Growth* (Meadows et al. 1972). A quarter of a century ago those authors had argued that this planet's biogeochemical tolerance for the expanding human load would reach an ultimate limit within a century if then-current trends continued. Now they have updated their study. Over the years since their earlier book came out, various other writers suggested "resource and pollution flows had [already] grown too far," and when Meadows et al. (1992:xv) had "let our minds fully absorb the message" they concluded "The human world is beyond its limits. The present way of doing things is unsustainable."

Is that enlarged concern true? Has the load imposed on ecosystems by the human population of the world indeed already exceeded global human carrying capacity? If so, why do so many people still doubt it and dispute it (e.g. Kenney 1994; Maurice and Smithson 1984; Simon 1994; Wattenberg 1987) — two full centuries after Malthus (1798)² warned it could happen?

Reversing Malthus

Preconceptions and emotional commitments can easily distort our thinking about such matters. They can cause us to misperceive what was meant by something we hear or read (Durkheim 1982 [1895]:72-74). Even statements that seemed to the speaker or writer to be clear and unmistakable in

meaning can be construed by reader or hearer³ to mean the opposite of what was intended.

Ever since the time of Malthus this potential for distortion and misunderstanding has been operating. Important statements Malthus made have been taken to mean something quite different from what he was trying to say. Because of this, events, conditions and processes since his time that actually lend support to his ideas have often been cited as disproof of those ideas. This reversal of meaning of relevant evidence is seldom recognized.

Not least among such reverse interpretations of evidence is this: vast increases in the earth's human population since Malthus (1798) wrote his famous essay, and more or less commensurate increases in Earth's output of food for human consumption, have been taken as proof that Malthus was just plain wrong (Weeks 1989:64-65; Weller and Bouvier 1981:37).⁴

What did he say that is construed as having been disproved? And how have developments since his day supported rather than refuted his position?

The best known sentences from the 1798 essay on population by Malthus seem to be these: "Population, when unchecked, increases in a geometric ratio. Subsistence increases only in an arithmetical ratio" (Appleman 1976:20). The language is archaic, two centuries old. The same ideas would be expressed today in such words as these: population, apart from environmental resistance, tends to increase exponentially and can potentially outstrip an environment's ultimate capacity to sustain it.

Preconceptions and emotional commitments have kept almost everyone from paying appropriate attention to the particular phrase that, for Malthus, was key to understanding what he was about. What too many readers too easily overlook is the qualifying phrase, "when unchecked." The real aim of his famous essay was to call attention to the importance of the various conditions and processes that do, in fact, check population growth — keeping

William R. Catton, Jr. is Professor of Sociology Emeritus, Washington State University. His e-mail address is: wrnccatton@aol.com.