Luke’s Blog

July 10 Year 1

The last day has been, spontaneously, the first holiday, the first "feast day" we've celebrated since the day of arrival. The idea has caught on rapidly that we should celebrate this annually as some kind of "Festival of Life". I like the idea and it connects with my upbringing as a Catholic.

When I made that connection with my upbringing, a flood of memories and sensations -- not all of them positive -- came to my mind and will take some sorting out over time. Two of these are dominant at this moment, so I will share them briefly -- they will need more working through.

One thought-line is provoked simply by having a festival, a feast day, and how important such occasions are in the life of a community. This also generated a whole bunch of mixed feelings about the idea of celebrating a Feast of Life -- fantaistic on the one hand, yet is this open to a kind of idolatry? This is only a question at this point, nagging at my mind while emotionally I'm making whoopee.

The other thought, though, is also nagging from my Catholic training and is the issue of what we call 'stewardship'? Timothy generated this with his instinctive reaction, "What have we done?" Again, only the question appears in my mind; no considered response.

Frieda's blog

10 July Year 1

I and around 50 others celebrated yesterday by a simple out-of-doors walk done, for the first time since we've been here, just for its own sake, not as part of an organised and directed programme. I was fascinated how different everything seemed, even though it was identical to previous explorations. For me, it was the first time I felt myself a part of this place and not an alien; felt a sense of ownership, of being a citizen of Socrates. This is now home and I cannot put into words what this is meaning for me.

I reckon John and I started a family last night and if so it feels right. This is our home and it is going to be theirs to.

I know that by now you will have seen many images of the surface of Socrates. Let me, though, try to put it into words what I experienced yesterday. In some respects, using your imagination on my words may better convey the reality than a thousand visual images.

When we were new to the planet the overwhelming sensation was heaviness, gravity being so much greater here. We have been training ourselves extensively on board the craft (remember that we can artificially control gravity on the craft), so we were already

half prepared but still found conditions incredibly tough. What so immediately struck me on my first step out of doors yesterday was the contrast to the first step six months ago, when I could not help myself but collapsed in a heap on the ground as if all my clothes were metal and I was being sucked down by a magnet. Now we walk freely -- perhaps not as freely as on Earth, but the issue of gravity no longer appears as a significant factor in life. What is noticeable when we compare old photos with the present is that we have all changed shape physically and are bulkier, more muscular. This is particularly noticeable in the children -- who seemed to move just as fast and easily as children on earth.

Yesterday was a very still day and you get a sense of the size of the planet. When the winds are blowing the air is full of dust because there is absolutely no plant to cover to bind the surface soil. Only when it is over raining or windless is the atmosphere clear, as it was yesterday. Because of its size, the horizon is vastly farther away than on Earth and there is no sense of curvature.

In fact, everything here is on a scale that dwarfs Earth. Standing outside the craft, I see two features. One, at the limit of the horizon to the 'north' (yes, we have magnetic poles here, the very reason we chose this planet) is a chain of mountains. We haven't had a chance to measure their height yet but they are on average much higher than Everest. The other feature, nearby and to which we walked, is the River Tutu which is about 3 km wide and only a tributary of the mighty Mandela.

The sky is blue like on Earth and today was cloudless. Three suns hang in the sky today, though sometimes only one. We know now that the system is a tri—star, not bi-star, but the third sun is so distant it shines in the sky like a light bulb in a room in full daylight. You can see it but it adds nothing to the general illumination. We call the major son Alpha, the second and less luminous one Beta and the distance son Delta (so as not to confuse with gamma ray terminology). The effect of being under the orbital influence of three stars means an extremely complex experience of the juxtaposition of the suns in the sky. Sometimes one, at other times two and, as today, sometimes all three appear in the sky-- and of course at widely varying angles. Nor do they rise and set at the fixed points that, without a computer to map things, can be predicted with any precision from day to day. The result is that the light intensity and temperature is constantly changing, rather like on Earth in temperate climates where wide fluctuations can occur in a single day. Add to the position of the suns the cloud/wind factor and the variations are even wider. We are still trying to map the orbits so as to be able to project the solar factors, but we are nowhere near understanding the weather and, of course, we have no satellites in orbit to provide information.

So we walked yesterday in balmy weather and high illumination, the clear atmosphere. You can't breat the gases in the atmosphere but we now know that we can expose our skin to the air without damage though we are still cautious about that. There may yet be factors that hold nasty surprises. Nevertheless, for the first time I took off my shoes and let my bare feet touched the surface. This was an amazing experience in itself and brought home to me one vast difference to the experience on the moon and Mars. There

no one has ever, on their surfaces, exposed any part of their body to the element. Doing this little action, then taking off my gloves and feeling the rock and soil with my fingers, was what brought home my sense that I belonged here. One day my body will become part to the body of this planet.

The landscape, naturally, is as barren as the moon or Mars since, apart from our release, still minute, there is nothing organic here, but even microbes. It has soil, the product of volcanic activity but, with no plant life to bind it, the soil is confined to depressions in the landscape, having been washed from every high place.

We wandered as far as the banks of the Tutu. This is an awesome river in itself. I have not seen the Mandela with my own eyes but I've seen pictures -- 50 km wide – we are near its mouth. The volume of water flowing past, even as we watched the Tutu, beggars the imagination. That water is not drinkable, being too high in gases but it does seem that we will be able to swim in it without harm. No one has yet been brave enough to attempt that yet. There is a small (by these standards) sub-tributary around 10 km upstream from us and where we are laying a pipe-line (we can treat the water for consumption). One of these days I guess we'll try swimming there.

Today, though, it was just about beginning to experience this planet as 'home'. It has been a very special day.

Samantha's blog

11 July Year 1

My feeling is the exact opposite of what Frieda has blogged and most everyone else is feeling. Frankly, this day brought home to me vividly that this is not and never will be my home and I am and ever will be an alien here. I have not really engaged with the issue of the organism release, considering it a minor sideshow. Now I grasp its consequences and implications I am livid. We have no right to do this. Talk of stewardship -- is just bunk. We should not be colonising and we should leave this planet as soon as practical and leave it in the condition we found it. Now we have stuffed that option and I'm angry.

Madam Lu's Blog

11 July Year

By what law, human, natural or divine, does Samantha make such a claim that we have no right to release organisms? She is right when she said that this is not "home" to her. Samantha's thinking is still locked on earth. I do not contest the challenge if we were colonists on earth. My adopted Earth-home, New Zealand, suffers grievously from imported organisms -- rats, stoats, rabbits, deer, goats from Europe and possums from

Australia, all with devastating effect on the environment of those islands. With hindsight, colonists were very wrong to invest the new lands with alien plants and animals.

That is not the case here. Nothing we introduce competes with or threatens the existence of native fauna or flora because there is nothing here -- not even a microbe. The situation parallels no situation on earth and you cannot apply ecological arguments from Earth's situation.

Second, whatever Samantha thinks, this expedition came to plant a human colony and we chose this planetary option because it has the potential to become Earth-like, to sustain life on the surface without artificial protection. To achieve that calls for the introduction of life to the planet, free life and building eventually an oxygen-rich atmosphere. It would be ridiculous not to have taken the steps we have taken and even recognising that we have no control over the outcome. Put bluntly, this is what we came for.

I don't share Frieda's mystical sense of humanity's spreading through the universe. What I do see clearly is that it is imperative that humanity establishes a viable foothold outside the Sol system. We know the earth -- any specific planet anywhere -- is vulnerable to cosmic events such as the asteroid that wiped out the dinosaur, or to the return of ice ages or other planetary realignments. If the human species is to survive it must, now or sometime in the future, take this step we are taking. In taking that step, it must inevitably transplant organic life as we are doing. There is nothing mystical about this -- just plain, ordinary commonsense.

Luke's blog

11 July Year 1

Samantha, you rejected the notion of stewardship yet in your challenge you embraced what it is all about. The whole point of stewardship is responsibility and accountability, which means that, unlike Mme Lu, I affirm that you have every right to issue the challenge, even if at the practical level I concur with Lu's resolution to release the organisms. Where I depart from Lu is in the implication that we can do whatever we choose. We are stewards, accountable for what we do and with what we are given. That includes the technology that has brought us here and sustains us; it includes the persons who are here; it includes the vast cultural heritage that we have shipped with us; it includes the array of live organisms we carry -- and includes the physical environment of this planet.

Don't ask me to whom we are accountable for all this for the answer will be varied. Some will say "God" and others, "the future", and I'm sure there is an array of other alternatives. The central point is that we act as people who are accountable and will be held to account for what we do with what we have.

I challenge you -- and Lu also expressed this -- that you clarify to whom or to what you owe a duty of stewardship -- in what name do you protest that we have no right to be doing what we are doing. One of the Christian parables about stewardship as told by Jesus has three people being given, one 10 pounds, one 5 pounds, and one 1 pound, the owner then going away for a time. On hes return, those persons given the 10 and 5 pounds had invested the money and made double for the owner and were duly commended. The 1 pounder 'protected' what was given hem by burying it to keep it safe, restoring to the owner exactly what had been entrusted to hem -- and was soundly condemned for hes action. For me, were we to sit on our organisms and not 'invest' them in this planet, this would be to abuse our relationship and responsibility as stewards. Rather, when we have to give account, we can say, "You gave us one planet; we give back two."

Luke's blog

12 July Year one

Far, far more concerning for me than the issue of whether or not we should release organisms is the news and data just received today from Earth that indicates a breakthrough in bringing "life" to inorganic silicon, raising the possibility that humanity may "evolve" into silicon-based forms. We have been sent the data because of its implications for colonisation of the planet (remembering that this was despatched long before our arrival here). Frankly, this news truly makes me tremble and ask questions.

Luke's blog 2 for the day

12 July Year one

The news I blogged earlier caused me to attend Bishop Timothy's midweek Eucharist, which I don't normally. The little gathering was still fizzing from the excitement of the festive day and no one else was registering anything of concern or more than mild interest in what is gripping my heart. I suddenly feel that life is slipping out of control.

It helped immensely -- my Catholic roots again -- to simply experience the mass and give thanks. It gave me back a sense of being grounded and that there was a control far deeper and stronger than our feeble efforts. That may be illusory but even if it is, right now it's an illusion I need.

John's blog

12 July Year one

I, too, received the data from Earth and registered its immense importance for us. It's been landed on my lap to evaluate it and determine whether it could have any practical value for us and it's far too early to give even a preliminary response to that. I have no

idea of the ethical implications that so clearly troubled Luke. My attitude is that if it can be done, we do it. It would certainly solve a huge array of problems about living on this planet. However, I'd be very surprised if we could accomplish anything approaching such a development with the physical resources we have here. But I am fascinated by the challenge.

Luke's blog 3 for the day

12 July Year one

John, it was just that very attitude of "if we can do it, then we should do it", that has brought so many problems to earth over the last century. When we left earth, it was convulsing to a whole series of major crises and, from the news we are getting, these are ongoing. All these crises relates in one way or another to the impact of science and technology on human life. We left behind us a raging debate that was challenging head-on exactly the sentiment just expressed.

You can duck the ethical issue by saying that any development along this path might take a generation or more. Imagine, though, if what you had received from Earth today was a blueprint for creating silicon-based life that rendered every single one of us 'organic' humans obsolete? Yourself included. You can do it. But is it right to do it? This is very much into the territory of Samantha's protest as expressed about the release of organisms. I'm not saying we should abort any such development. I am saying we should be considering deeply the implications before we even begin down this track. This should be a decision of the whole community, not that of a bunch of technocrats.

Samantha's blog

13 July Year one

Thank you 1000 times over, Luke, for alerting us to this development. In all the excitement and turmoil of the past few days, it could so easily have slipped passed unnoticed and developments begun that could prove difficult to halt.

Mme Lu's blog

13 July Year one

The release of the organisms is done. It can't be undone whatever the rights or wrongs -- and I have no doubt in my mind it was the right thing. This issue of silicon-based life is another thing altogether. I agree we have to lay the whole issue open for full consideration of the whole colony.

It seems to me at this moment that the central issue is survival -- but survival of what? That is the question. It seems now to be at least theoretically possible to invest silicon forms with intelligence and self-replication. But is this “life” or just an imitation of life? Put starkly, if the future holds that this planet becomes populated with silicon "beings" to the exclusion of our organic human beings, will we have succeeded in our aim of ensuring the survival of humanity, albeit in a physically transformed state -- or will we be signing the death warrant of a species to surrender it to the machines?

I can see the question but as yet not any answers.

Madam Lu’s blog

14 July Year One

If I look into the far distant future, it seems to me that it is the logic of development that, if such is indeed possible, that ‘life’be released from the limitations of carbon-based organisms that require Earth-like habitats. The chance of finding compatible habitats in the limitless expanse of the universe is extremely remote. We were lucky to find this planet with the least enough similarities to earth to make it conceivable that in time we could inhabit this place naturally -- but ‘in time’ could still mean tens of thousands of years. Can organic humanity really wait and survive that long here?

I said yesterday that the question of allowing all resource in development of silicon-based life is an open one here in the colony, recognising that Earth will effectively move independently of us. Overnight, the Council has had a preliminary discussion about this, with no one able to say at this point where they might stand on this in the future, but all in agreement that we need to work towards a consensus about this, one way or another.

For my part, my leaning at this point is very much towards allowing this development, recognising that we cannot allocate resources from already drastically limited capabilities, but that we should keep abreast of what comes from Earth and respond positively as we can.

Samantha’s blog

14 July Year One

What a weird lot we are! We've just gone overboard with joy -- the others have, not me -- about the introduction of organic life to the planet as if this was the ultimate thing in life, and now we are considering making organic life redundant!

Whatever intelligence and a self-replication is built into silicon, what result is not and never will be ‘life’. The microscopic organisms that are multiplying on the planet are more complex and advanced than any machine -- that is what we are talking about -- will ever and or ever can be. Whatever they are, they are not ‘life’ and we should never use the phrase ‘silicon-based life’. Intelligence I grant, and potentiality for intelligence that is

greater than the current human species is capable of, even at the highest levels of brainpower. But intelligence does not equate with life. There is life in a sperm that it does not have a brain, does not have 'intelligence'.

We already described highly intelligent people who have stunted emotional and ethical sense as 'psychopaths'. Well, the machine is the ultimate psychopath. If it is programmed to kill it will kill and have absolutely no ethical questions about it. Ethics can, to a degree, be programmed in, but even humans find that there is no possible programmatic way to resolve ethical dilemmas. When humans make poor judgements they can repent and seek forgiveness. Any such thing is alien to the machine-mind, however sophisticated.

Human emotions are not mental processes; they cannot be programmed into any form of non-organic life -- they are chemical, hormonal and integral to being organic. If we think for a moment that any ‘thing’ could be human without emotions that we are deluding ourselves. We may be able to make thinking machines but that does not make them human. We do not continue humanity by making thinking machines: this is not an evolutionary step.

This does not mean necessarily we should not go down this track of development but personally I am against it. It does mean that we should not fool ourselves with illusions about "the next evolutionary step".

Luke's blog

14 July Year One

The computer and gaming machine games of my youth were full of fantasy about the struggle between humans and machines. I never thought that it was a scenario I could face in real life. I recognise that, in fact, even if the eventuality comes to pass, it will probably be beyond my lifetime, but that is not the point. A momentum would begin with us and our generation that the next generation may be unable to reverse.

I am also conscious that any such development would inevitably impact on our colony more dramatically than among the humans currently on earth. A craft-load of 'silicon life' (and I do hear Samantha’s protest about calling this 'life') would literally overwhelm the settlement. If it were truly possible to be able to ensure that the silicon-intelligence (let's call it that, not 'life') would remain firmly under human control, serving human interests, then there would undoubtedly be huge advantages. We could send colonies to planets like this to establish the conditions for the arrival of humans, conduct explorations without the risks to organic life and carry the seeds of organisms all over the universe.

The critical question is, can humans control the creations of silicon-intelligent 'beings'? That raises another question: can we control the creators? If silicon-intelligent 'beings' are subservient to human control then who are the human controllers and what are their objectives? That is when the scenario gets real scary. Are we going down a track parallel

to the development of nuclear weapons? Worse -- nuclear weapons that could have a mind of their own, beyond human control?

Luke's blog second of the day

14 July Year One

The issue is part of the wider one of grasping the ambiguous status and results of science and technology to humanity. We here are particularly affected by this ambiguity as our entire existence on this planet is dependent on science and technology to an extent not experienced on earth. We are only here as a consequence of science and technology. I personally experience intensely the ambiguity of this as I long to be back on Earth, never to have come on this venture, to be trapped here -- to be utterly dependent upon science and technology.

As noted in an earlier blog, Earth is currently in deep trouble all over the planet and entirely because of science and technology. It has brought great benefit to humanity but also a curse -- and that curse threatens to destroy humanity or at least reduce it to an insignificant remnant.

In the 20th century, humanity in Western societies largely replaced God with science and thought they were making advances. Science and technology became idolatrous and delivered the effect of all idolatry -- devastation of its worshippers.

Timothy's blog

16 July Year One

I have to be very careful here in what I say. The history of the Church from the Middle Ages to the present has been one of continual misjudgement in matters concerning scientific and knowledge advancement, and in every controversy from Galileo to AIDS religious authority has consistently taken the wrong side, impeding social development on one hand and losing credibility on the other.

So here humanity is being presented with yet another 'advance' in scientific and technological achievement and what are we to make of it? I am writing this blog very much as the bishop with jurisdiction at least over this colony but for the present, over any development beyond the Sol system. I am writing both for my fellow colonists, as their bishop, and as a communication to the earth and especially to the Christian community on earth.

I wish to address, first, the issue of evil. If we look back over the past century or so, we can see clear evidence of evil. The First World War was an evil conflict, utterly without sense or just cause on any side, conducted without regard for humanity, again on both

sides. The manner of the post-war behaviour by the victors was evil, directly causing almost all of the evils to follow. The totalitarian regimes in Germany and Russia and the militaristic power that came to dominate Japan were evil and all behaved evilly in both internal affairs and external aggression. The Nazi 'final solution' was an extreme of evil, unadulterated by any tinge of redemptive intent. Development of nuclear weaponry was evil. Apartheid, and racism in other regions, was evil. The emergence of the drug trade was evil.

We recognise all these things in hindsight; yet, when in the midst of it some of the evil nature was not at all clear, at least to many people. With few exceptions, people engaged in the titanic struggle of World War One did not recognise that they, on their side, were just as bemired in evil as the other side -- leading to the terrible Treaty of Versailles. Even in that, few contemporaries outside Germany would have identified the governments party to that Treaty on the Allied side were doing what was evil.

During the 1930s, most German Christians supported Hitler and even the Pope could not see Hitler is evil. Apartheid survived because the Dutch Reformed Church in South Africa embraced it.

The very opposite has also been true -- that we have so very often characterised people, actions or technology as evil when, in the wisdom garnered with time, there has come acceptance that evil has not been present. The classic instance is the attitude to the Jews, homosexuality, attitudes to Christians of other denominations and people of other religions generally.

Here in this colony we have, as you will have noted already, come to a unique experience of the human community in that we all, everyone, share the Eucharistic meal together is the act of communal bond, accepting that each and every person does come to the table with different perspectives on what spiritually lies behind the act, yet we are of a common mind that this is an outward expression of a profound and real inner unity – a unity in which, even in the bond that creates we are each of us fully free. We all share at exactly the same level with no regard the differences of gender, ethnicity or status.

For me, the visible and concrete evidence of evil would be manifest in and by anything whatsoever that fractured the sacramental act as embracing the whole community. This act, this rite, is the touchstone of everything that is good and positive. At some point I will develop the theology behind what we are doing, but the point at this stage is that it provides a perspective from which to evaluate what is or is not 'evil'.

From this perspective, then, I look at this development potential for silicon 'life'. My primary responsibility is the care of this community, sacramentally actualised in the rite. If the development serves the well-being of this community then it is positive. If it threatens the well-being of this community, to divide it or destroy it or destroy any part of it, or give one part dominance over the rest, then this development is evil. The problem, as identified earlier, is that, in the midst of the development, it can be difficult to evaluated for the evidence is ambiguous. At this present time, the information we have is

too ambiguous for us to have a clear sight one way or the other. We must, however, come to such a clear sight.

The issue brings back to the forefront of human thought a problem that has dogged theological thought since the second century A.D., and that is the question of what it means to be human. We must address this question critically and urgently because what I see is a prevailing belief arising that we have only to endow silicon with human-like intelligence for silicon to become 'life', and human life. What this means is that the definition of what it means to be human lies in rational thought -- a legacy perhaps of an Augustinian way of defining humanity that became so influential in the Western world.

The theologian who began the whole journey of defining what it means to be human was Ireneus in the second century and he was adamant that being human was an integration of body and mind. I am utterly convinced that he was right and although Augustine's thought was far more sophisticated, he led Christianity in the West in this -- and in other areas -- along a path that has not been healthy for humanity. I am an utter agreement with Samantha in affirming categorically that whatever emerges from the silicon developments, it will not be life and it will not be human. To think anything else is to create a dangerous illusion and lead unequivocally to evil.