

Holy Parthenogenesis in Bethlehem Batman, it's Christmas again!

Dear Friends and Fellow Spacefarers of Spaceship Earth

2014 was a quiet year for us, spent mostly in Melbourne aside from a few days away here and there. Mostly 2014 for me was a year of watching my children and their growing up. Aside from this, our first cat Zeus died on the 17th of October after fourteen years with us. He was eighteen years old and we got him when he was four from the cat protection society. Zeus came into our home in 2000, shortly after Mindal and I had shifted in together. So he spent fourteen of his eighteen years with us. When we first met him, he was up on top of the roof of a little shed, keeping other cats off what he clearly thought to be his property. Indeed, he took a swipe at me and we at first thought "he's a bit too wild, this one". But, when I was sitting down waiting whilst Mindal went off to find some details about one of the other cats out, he stared at me, jumped off the roof, came straight up to me and forced his way onto my lap. He clearly told us he wanted to come home with us. His king of the roof presence was characteristic. I don't believe Zeus was ever physically aggressive to another cat. Whenever a cat came onto his territory, he would always back down at first. However, invariably, within a month, all he had to do was walk out of his cat door and stare at the intruder to make the latter clear off, and he did this wholly by bluff and never struck a blow. He physically fought on three occasions when he was attacked by tomcats and ended up needing abscesses drained. Once we were highly amused at his role that we called the chaperone. You may know that our other cat Freyja, even though spayed, almost certainly had ovarian tissue left in her through a botched spaying operation (she would come into heat every spring). About ten years ago, her calls drew a local feral tom, whom we called "Sylvester" owing to his markings (exactly the same as those of the Looney Tunes Sylvester – incidentally named after the domestic and African wildcat's zoological name *Felis Sylvestrus* – the cat of the woods). Sylvester and Freyja were extremely cute together: for about three seasons in a row they would spend about two weeks constantly together and being extremely affectionate with each other. It was like seeing two teenagers in love and, although I was fearful of an ectopic pregnancy, I didn't have the heart to separate them: they clearly took so much pleasure from each other's company. Zeus did though. He would loudly, very deliberately, thrust through his cat door, make a purposeful circuit of the back veranda and stare at them both, whereupon both would swiftly skulk away either up the laneway or under the house. The latter was always a mistake: Zeus would follow them both under the house and stare again, whilst keeping his distance. There was no physical aggression: but he always made sure any lovemaking was swiftly taken well off his land! Zeus was terrified of both Nakira and Sascha as babies, but both our children swiftly learnt the ways of cats and knew from a very early age that they needed to be very gentle with him if they wanted to be with him. Zeus spent many nights throughout his last two years sleeping in the cot with Sascha.

Nakira's reading appetite has become insatiable and she reads several hours each day. She discovered the Harry Potter books about three months ago and read all of them well within two months. She and I have had a grand time reading some bigger books together: we read Harper Lee's "To Kill A Mockingbird" (I thought that she would like a story through the eyes of someone her same age), John Elder Robinson's biographical "Look me in the eye", Fannie Flagg's, "Welcome to the World, Baby Girl" (by the way, one of the most enjoyable tales I have ever read) and Gerald Durrell's "My Family and Other Animals" and "Birds Beasts and Relatives". She was even fascinated to have me read her little bits of Chaucer's, "*Canterbury Tales*" in Middle English as well as small samples of Old English from Beowulf and the Peterborough Chronicle; the spelling and word differences fascinate her. She was particularly interested when I told her things like how modern *qu-* words were always *cw-* in Old English, so that queen was (*séo*) *cwén* (with pronunciation almost the same as our modern word), for example. I was a little relieved to see her burrow into literature and fiction; up until this year her reading was wont to be mostly scientific literature and her speech was sometimes decidedly odd as a result (I once found myself "correcting" her when she said "I formulated a strategy to implement it" with "You mean, you thought a way to do it up?"). Nakira's eighth birthday party in February (birthday 28th January) was a "Triassic Party" because the Triassic Era was the Eighth Era (if one begins one's count with the Precambrian as the first). We had a "Pin the Tooth on the Nothosaur" game, "Battle Juice" (red cordial, for blood), "Dinosaur Diarrhea" (coca cola), "Cycad Salad" (made of green grapes and green fruits) and "Prehistoric Pond Slime" (green cordial) – all ideas wholly thought up and "implemented" (as she would say) by our slightly crazy and delightful daughter. I guess we may be having a "Jurassic" party in February! One of her big questions this year, which she asked in February and has been asking ever since is, "What makes me, me? Why can't I be someone else? Can I know what it's like to be someone else?" I told her I speculate that the first question might well turn out to be related to the question of "What makes now, now?" in modern physics *i.e.* why do we perceive a flow of time and perceive only one instant at a time

when there really isn't a great deal of evidence that time does objectively flow. Nakira found all this fascinating. Soon after this she coined the word "phytoderm" – which means a "plant-skinned creature" and I tell her that 40% of our genes are the same as a potato's, so we have fun calling each other potato man and potato girl. Nakira thinks the idea of potatoes and people having so much in common is hilarious! Maybe this is the origin of the childrens show "Small Potatoes"! Ever the inventor, she wants to build a machine to travel in time, the main idea of which seems to be to float inside an unpopable bubble, she designed a rocket car with spiky wheels to steady it on the and she also hatched a scheme (which we didn't let her do) to bore a hole in her mattress and link it with a pipe to the central heating outlet to warm her bed. In June, Nakira did a talk at school on the Green Anaconda – she made a paper anaconda, a peccary (its food) and a "snake sandwich": rolled bread with squashed tomato inside and a green jellybean poking out of either end as the snake. As Zeus became less nimble and had trouble getting around, Nakira came up with the idea of an escalator up to Zeus's scratching post and put his food up at his level so he could eat and drink from his scratching post without getting out. One day, when I had to take myself to bed with a migraine, Nakira brought mandarin and grapes on a tray for me to make me better.

On a particularly bad day at school, Nakira told us she wanted to go away and not have us as parents anymore; poor Sascha was terribly upset, sobbing and saying, "I want a big sister". He was very anxious to pick Nakira up later that day. I guess the next day was better for her. Some slightly worrying signs of silly peer pressure at school showed themselves when Nakira said that she "doesn't like the hairs on her legs" and, "I don't want to be a hairy brute!" The next day, though, she had decided that hairs on the body were good for "thermal insulation". Nakira is also extremely fond of her little brother: yesterday I went to Nakira's end of year presentation at school, and Sascha sat with Nakira with his head on her lap, and she stroked his hair throughout the presentation (aside from when she had to go up and fetch her badges). One day Nakira secretly put \$14 into Sascha's money box, then whispers to us "I've given some secret money to Sascha". The next day, Sascha wanted to buy a toy dinosaur for Nakira with his money! Nakira and Sascha often play wonderfully together; one of their favourite games together is to use Sascha's Lego, Thomas Train sets, blocks, toy dinosaurs and whatever toy Sascha may have borrowed from the toy library to build a city and make up tales about what happens in it. These building and play sessions wontedly last for about half a day and Sascha often calls the city "Inverloch", where we go for holidays that Sascha loves. One day in April Sascha had been ill overnight and Nakira was very worried for him; then Nakira made Sascha some breakfast with "lots of vitamin C" comprising a banana and apple. At one stage they made our exercise ball into a monster that looks rather like Leigh Hobbs's "Mr Chicken". If you've not seen this story of "Paris's most startling visitor", you should look it up! One of my favourite lectures from Nakira was when she ontrasted our lives with those of rats, saying that rats have a happy although short life, whereas we have long lives but most people spend most of it grumpy and wanting more, whereas they should be happy that we have no predators and live so long. In November I took Nakira to see David Attenborough speak and show his 3D films. Nakira clearly got Attenborough's humour, much of which dealt with his dealings with people who annoyed him but whom he was too polite to be nasty to. Whilst we did this, Sascha stayed at home and played dolls with Mindal: they made a story in the doll's house where Mindal's doll fell down the stairs and had to stay three nights in hospital whilst Sascha's dolls had a nonstop three day party! Sascha's characters, however, showed some sympathy and brought ice cream to Mindal's character whilst she was in hospital.

Sascha's year has seen a steady and wonderful growth in his language and an awareness of his World. He is very fond of his big sister, and loves to show her off to everyone; on arriving at kinder in March he proudly announced to all "She's my brother!" (Nakira swiftly corrected him). Later that day he snuggled up to her saying, "You're my best friend", something that left Nakira thoroughly chuffed. Once when Nakira ran off in Kalang park, he was very worried that a "Ghostie would get her", and once when Nakira, angry with us, threatened to walk out and "get squashed on the road" he became very upset saying "I don't want her to get squashed on the road, Papa". He began the year making all the delightful language slips that three to four year olds make: once when I suspected he had a splinter in a wound, he was wailing to me that his wound "doesn't have weasels in it". It took me some time to understand that "weasels" was his rendering of "tweezers" and that he was frightened of my using tweezers on him. Huntsman spiders (a favourite of his) were, and still are, "Husbands". Something "lower" was "downer" (he spoke of the "downer windowsill" for example), Headphones are "hear-phones". At the same time he shows a great interest in language, often asking what words mean and making sure he grasps their meaning before leaving off questioning me about them; he is showing a great deal of interest in letters and reading and can write his name. He wants me to teach him to read, and I show him a very little, but on the whole I tell him that there is no rush and that one only gets to have the joy of learning to read once. Once you've done it, you don't have that joy again. Sascha is happy with this, whereas

Nakira at the same age was *sooo* desperate that we had to help her teach herself. Sascha, for all his delightful language slips, has a dazzling command of language: recently he told me “I’ve got a secret *not* to tell you” and one of his latest interests is in finding opposites, and he works out unusual examples. “Grow” against “Die” was one of my favourites. Speaking of which, Sascha, at what I believe is the normal age (Nakira was more like three and a half) became this year aware of his own mortality, maybe as he watched Zeus grow frailer – he certainly had a sense of Zeus coming to the end of his time. As he gets his head around the notion that we stretch only a finite breadth over the great spacetime continuum, he comes up with poignant questions like, “Will Nakira/ I die?”, “Will my toys break apart when the World ends?”. “Does everyone die eventually?” One day in the park when we were watching all the birds (he loves all the lorikeets, currawongs and butcher birds we see there) at one of his favourite places near the “froggie pond” and the “fairy tree” he was asking me whether he would die. When I explained that yes, we all do, he looked around thoughtfully at the birds and at the little caterpillars that make beautiful lacy skeleton leaves at this particular place and said to me, “but all living things are still beautiful, aren’t they Papa?” At the other end of our extent in the great spacetime continuum, he has become very interested in babies, pregnant women and his own beginnings (as happened with Nakira at age 4). I guess at this age children can reason that they were themselves babies, but at the same time are aware that they cannot recall being so. Somehow he (thankfully) can ken the shape of a pregnant woman and has not yet been mistaken when he goes up to them asking things like “have you got a baby inside you?” and “is there a girl or boy baby inside you?” and “may I listen to her [the baby]?”. He often speaks of wanting a baby brother or sister and asks things like “Did I have a turn inside Mummy after Nakira had her turn?”

Sascha adores all things of nature, but I think somewhat differently from Nakira. He seems more to want to just see things and look at their beauty: Nakira was this, but was much more about learning about these things and why they did what they did. Sascha’s favourite creatures are millipedes, spiders, dragonflies, snails and, above all, butterflies. He spent two hours in the butterfly house at the zoo one day and was amazingly grumpy afterwards: he had been so enthralled and had been concentrating so hard that he fell in a heap on leaving! He adores the “Grow” section at Melbourne museum and I found that he knew the life cycle of a butterfly, aside from that I had to tell him what a chrysalis was called. Snails are also a favourite: a theme he loved drawing for about two months was the “Snail Train” (snails riding on a train). A bee landed on his toy truck (slurping up the sugar after he had spilt his milkshake on it) and he was enthralled, watching the tiny, perfect creature from only five centimeters away. After the bee had flown off, he seemed to be bursting with delight at having seen something like that up so near. Our neighbor Meg keeps bees and he loves watching them come and go out of hers and the other wild hives we find along the creek. He still loves plants and flowers and loves to pick and bring home wildflowers and keep them in water. He made up a dandelion song whose words were something like “little seeds fly away, we’ll miss you dandelion, but then they grow back again, they come back again as dandelions, dandelions”. As Fall flowed into Winter he loved kicking through thick drifts of Autumn leaves, and as Spring drew near and he saw many plants coming into bloom, he made up a little song, “Grow plants grow; they all sprout up and grow, grow, grow”. Wattle flowers seem to be a particular beloved: he said all the July wattles smelt really good in the parks and asked, “Can you eat wattles?” Sascha goes looking for wattle trees along the creek and delightedly names many of them “Arthur, Claire, Funkin, ...” were some of the names. A gum branch he picked up was brought to life and was declared to be “giggly” – quivering all its leaves as he shook it, earnestly declaring he wasn’t making it quiver but that it was doing it “all by itself”. Two of my favourite nature questions from Sascha this year were firstly, when we saw a beautiful yellow full Moon rise slowly in the East mid November, “Is the Moon a Sun?” and, not too long before this, “How does a bird or butterfly come into the World?” Naturally, Sascha is still very fond of cats and was very upset when Zeus died: he makes signs for the neighbourhood cats like “don’t go on the road”, which comprise a cat picture with red line through it drawn by him and Papa’s writing underneath.

Sascha has a relationship with fear and wariness that I find fascinating and very different from mine: I think mine is the more usual one and that is a relationship of avoidance whenever one can. He is a very wary child, very wary walking near the road and very frightened of the idea of fire for example - he once found a box of matches and brought it to me very concerned asking “Will the fire come soon, Papa?” and wanted me to throw it in the trash bin until he understood that the matches only light when we want them to. At the same time he thinks about things carefully and does not seem to let fear overwhelm him if he reasons that something is OK notwithstanding his fear. His being happy to have the matches in the house in the cupboard once he understood that they would light only when we wanted them, even though he was almost unconsolably desperate to get rid of them before my explanation is a good example. Climbing on the playgym at the park one day, he looked uncomfortably afraid and I asked him, “Are you scared?”, to which he answered, “Yes, but I’m OK”. His fear is intense but

unreasonable fears do not linger for him, and he seems to have a very sharp ability to tell the difference between when fear is telling one something and when it is simply paralyzing. His fear of fire lingers undimmed, whereas his fear of climbing when he has picked out his path does not, for example. Recently he has become interested in rockets and astronauts, and watching all the Apollo missions on YouTube with him brought memories flooding back for me, especially since I was exactly the age Sascha is now when Apollo 8 circled our Moon. As a boy and young man, I don't think I had a particularly high opinion of astronauts, reasoning that one would need to be a reckless idiot to do something like this. Perhaps I was thinking of my Darwin award-winning relatives on the farm: my experience of grownups and their machines was after all stained forever by several of my relatives who met sticky, sad but ultimately altogether avoidable and very stupid ends. The launch of Voyager when I was twelve and other unmanned probes that did all kinds of wonderful space exploration that for me utterly surpassed any of the Moon missions without putting anyone's life at risk only strengthened for me what I saw as the idiocy of astronauthood. "She'll be right mate, there's nothing to be frightened of" was the to-me-well-wonted approach on the part of my relatives to earthmoving machines and tractors with no brakes at all and no protection for the driver as well as to gelignite (which my grandfather kept in quantities measured in disused caravan loads full stashed in his machinery shed) and high explosives to clear one's land with, with only a one page instruction sheet written by the shire council (there's a font of knowledge for you) as training. So it was fascinating, and a stark contrast to rural Australian recklessness, to hear the astronauts talk about detailed calculations of probabilities of failure (William Anders, whose funny big teeth and striking goofy wide-eyed face peering from his enormous fishbowl helmet caught my heed as a four year old, thought he had a one third chance of complete success but also a one third chance of not making it back), a very thoughtful and considered taking of these risks and, many, many times, astronauts being quite open about their fear: Scott Carpenter summed it up, "There's nothing wrong with being frightened, it means you will do a better job". Very few of them were the daredevil kind at all. I must say I hope Sascha doesn't fly to the Moon, but I couldn't help maybe glimpsing something of his considered – and to me quite foreign – relationship with fear, in particularly Scott Carpenter's sentiments.

Nakira or I (I can't recall who) made up a little poem for Sascha that he loved to say at kinder: *Sascha Ngiri Moo, That's adorable, lovable you! A child of the Earth, with a heart full of mirth, You're Sascha Ngiri Moo*. You may recall that Ngiri is Sascha's middle name, given him by Nakira and named after Nakira's favourite (at age three and a half) book character (Ngiri Mdogo, from Graeme Base's "Jungle Drums"). We have a wonderful

Both Sascha and Nakira have quite a bit of fun acting and playing make believe: one day in the car, on the way to go shopping, Sascha said, "When Nakira gets angry I get angry; see, watch my angry face" (Sascha then showed off some angry faces, sad faces, funny faces showing quite a command of emotional expression and acting). Nakira and Sascha play three little pigs at kindergarten – Sascha knocking on the window of the wendy house and shouting "I'll huff and I'll puff and I'll blow your house down!". Nakira once decided to direct a performance of Little Red Riding Hood and gave Sascha his stage directions: "Now, go into the house and eat Granny"; whereupon Sascha ran in, slammed the door behind him so we couldn't see him but could only hear him shout, "Eat, Eat, Eat, Eat!". Sascha made up a "grow plants" puppet show and performed it from behind the windscreens at Gourmet Girls café. Two mint plants were the protagonists and were having a lively conversation as they pushed up from behind the windscreens. The two of them built a hut in our back garden from sticks, which Nakira called Villa Villekula (after Pippi Longstocking's house in the Astrid Lindgren tale) and numbered it 54½ Main Street! Recently, Nakira and Sascha had a lovely time playing with two little girls (6 and 3) at the playground: Sascha and the younger one (3 years) had fun putting "fuel" into his car – lifting the seat and putting grass underneath and Sascha fetched dandelion flowers as "special fuel". One of Nakira and Sascha's favourite things to do together is the sit in the bath together and eat their favourite foods with "pointy things": Sascha eats frozen raspberries with a sweetcorn spike and Nakira eats frozen peas with a skewer! Today I saw Nakira, with some success, teaching Sascha to swing: I have been trying to teach Nakira this for some time but I can't for the life of me describe what movements and weight shifts I make to swing, so I was quite surprised to find that she had suddenly worked it out for herself, and, moreover, was explaining it perfectly to her little brother.

Sascha and Nakira and I went down to Inverloch for a few days in the September school holidays. Our favourite café, the Red Elk had closed and Sascha wept inconsolably on learning this! He loved staying in the caravan park cabin, and he yearns to go on holidays in a caravan, noticing caravans on the road all about and thinking about what life would be like travelling in them. Nakira and Sascha built an ant hotel outside the door of the cabin and Sascha was very sad to come ("can't we stay just

two more days please”). I said we can go camping if he uses the big toilet rather than the potty, at which point Nakira said that one doesn’t have toilets at camp, so I said, joking, “No, of course, you just hang on all week”. “No Papa, that’s silly”, she says. “What do you do, then?”, I ask. “You mark your territory”, she answers. Of course.

As for me, well I turned 50 this year. Like I said, I was four years old like Sascha when Apollo 8 circled the Moon. We had a dinner at Gourmet Girls café on a Saturday night in mid March. I haven’t worked for Optiscan since January and have instead been concentrating on writing (academic papers, as well as material for my physics and mathematics website) and I have been doing work for Carl Zeiss Oberkochen in Germany. We still hope to make the shift there as I do not foresee any meaningful work for me in this land for the rest of my lifetime. More importantly, Nakira talks of nothing else but being a scientist. After naively waiting far too long for the fatuous forecast of the “Clever Country” to materialize since foretold in the late eighties, I now know categorically that this land will never give Nakira the opportunities she will need for a fulfilling working life. As for Sascha, well, I think he’ll be happy to cruise along and straddle a small hiatus wherein suddenly he needs to learn a whole stack of new words, but bilingualism will come to him organically and unrushed, as most things seem to. Mindal is enjoying her work at Keystone, still building helpdesk and fault tracking database systems. She gets on well with her workmates, even if the head of her division likes the sound of his own voice and is given to excruciating, cringeworthy attempts at oratory. It’s lovely to see Sascha and “Mummy” meet again at the end of each day: ultimately, she is the nearer parent as I was occupied looking after Nakira whilst Mindal fed Sascha throughout his first days in the dry World. I hope that 2014 was good to you, that 2015 will also be, and that we shall see you all again before too long.

Lots of love from Rod, Mindal, Nakira and Sascha.



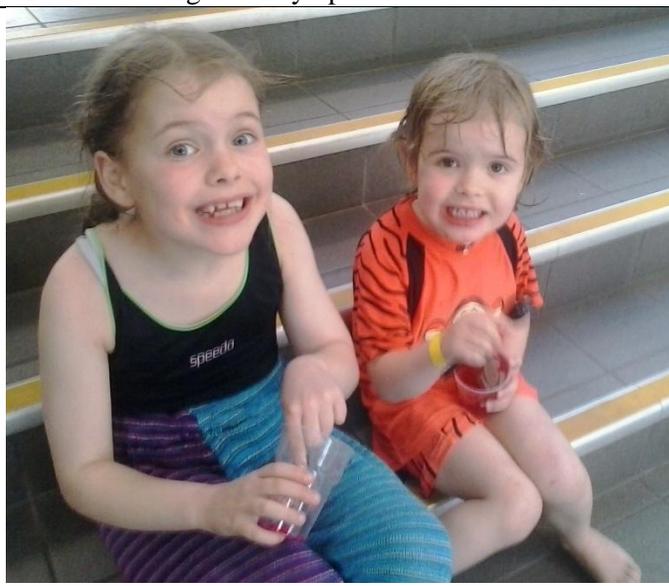
Goodbye Zeus 1996-2014



Nakira reading the encyclopaedia of cat health to Zeus



Sascha with a friend at Collingwood Childrens Farm



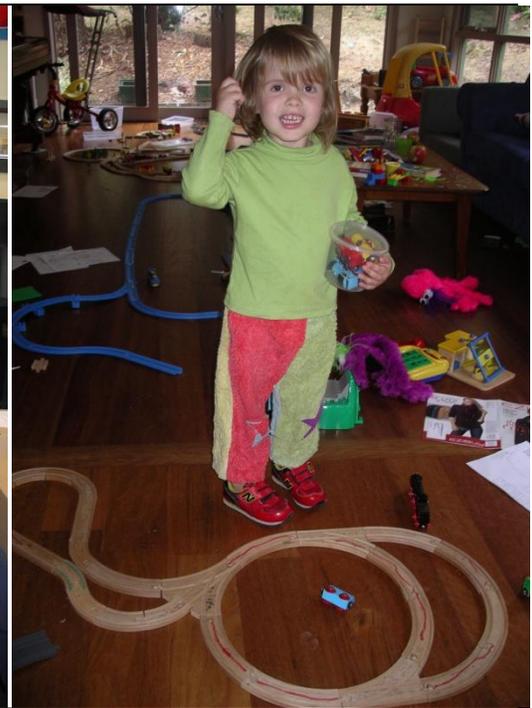
Nakira and Sascha at swimming lessons together



One of Sascha's Creations



Nakira with Mrs Saunders, first day grade 2S



Sascha and one of his own railroads



Train in Snowdrift Adventure



Nakira and her Submarine



Snuggling together



A 5th Birthday Cake especially for Sascha



Sascha wants to mail himself to his Aunty Jane!