

**NATURE, SCIENCE AND TECHNOLOGY
IN THE POETRY OF CILLA McQUEEN**

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There is a theme of eco-sensitivity in Cilla McQueen's poetry, the product of a poet strongly influenced by her natural surroundings. This in itself is not unusual. There is in poetry a history of response to – and engagement with – the natural world that dates back largely to the Romantic era; a response which in the modern industrial world is a cause of conflict. "Within the romantic legacy, the phrase 'modern nature' can only seem dissonant Insofar as nature is exposed to modernity it seems diminished, since modernity represents fragmentation, historical transformation, technology, and rationality" (Costello 132).

Access to this body of language and imagery is part of a common poetic heritage; educated poets are aware of this tradition even if they choose not to follow it. But McQueen is unusual amongst poets in that she also has access to a second natural language: the language of science. "Like poetry, physics broaches notions of reality and unreality," she says (O'Brien and Cross 93). Looking through two natural lenses, each with their own vocabulary, can give stunning imagery, for example the "standing waves of gravity, clear as starfish" ("Bluff Song (ii)" *Markings* 10).

Assimilating this second language has allowed McQueen's perspective to move past the all too common poetic experience of science as technology only – a limited understanding which encourages a simplistic – if valid – perspective of science as nature's besieger. However it can also lead to a form of literary astigmatism, where reconciling the two different perspectives leads

to a distortion in form. For McQueen's merger of these two traditions, these two vocabularies, is not always consistent. Pure science, with representative images (such as quasars and quarks) that are wholly beyond human adaptation, is perceived as positively as the traditional natural. In contrast, the technological application of science often falls into the traditional role of natural oppressor and exploiter:

.... The land lies passive
under damming, excavation, human
habitation, subdivision, pylons,
pipelines, sewage ponds and cow-piss
(“Reprise” *The Radio Room* 46)

Yet, interestingly, McQueen has been able to move past the negative tropes of technology in one area: flight. In its agents and machines, in its freedom and separation, flight becomes a corridor of benevolent technology linking the worlds of the Romantic and scientific naturals. In effect, McQueen's access to dual languages creates a poetic perspective of curious ambiguity – the conflict between rampant technology and ravaged nature still exists, yet only in a contained environment. Once one can move beyond the earthly boundaries of that environment, the conflict diminishes, and flight becomes a positive, transformative, technological narrative.

Technological imagery:

Technology has the unenviable task of being the most visible middleman in the relationship between the traditional natural and scientific worlds; one more easily used by poets than the more complex, less accessible scientific theory. The spectre of technology is an easier alternative vocabulary for poets as it provides ready-made, striking, and culturally identifiable images of the exploitation of the natural environment. Direct exploitation of the natural by the natural, as seen for example in the relationship between predator and prey, garners less condemnation.

Such is the case in the Riddle poems, where the prey almost seems to condone its own destruction. “Make a spoon of my breastbone / and of my wings a feather broom” (“Riddles (ii)” *Soundings* 8) says the gannet, while another unnamed subject asserts “my jaws/ hold down/the roof” (“Riddles (i)” *Soundings* 6). This is no wasteful taking tongues from buffalo; everything is useful and well-used. Even capabilities are absorbed, as in the muttonbird poems when after “You grab the necks and bite the heads” (“Birds” *Markings* 38) the birds’ hearts are absorbed: “We eat the power to fly, / succulent stamina of the titi” (“Hearts” *Markings* 39). This human participation in predation and consumption implicitly anchors the human to the biological, refusing to distance it from other animal-animal interactions, like that which takes place in “A Crayfish”:

Its only enemy is the wheke,
who can catch and squeeze it in its supple arms,
disable it and suck the guts out.
(*Markings* 37)

A similar relationship, once removed, is indicated in the poem “Complex”, where technology stands as proxy for the human consumption of the natural world:

Reflections of sunset glittering
on that triumphant smelter complex
piss me off. It’s sucking up
the power of southern lakes,
twinkling brashly where there should be only
beach and sky.
(*Soundings* 44)

Consumption by technology may annoy McQueen, but consumption of the natural by the natural has less negative connotations. The muttonbirds are hunted cheerfully, their power co-opted without sympathy, but the same thing done to a lake is intrusive and unnatural. It’s not the act of

absorption that is necessarily positive or negative, but the agent. Technology, that bastard child of science and humanity, neither fully one nor the other, sits outside the natural world banging at its door like a battering ram. Gobbling its parents is *unnatural* cannibalism and death, the endless “bodybag bodybag bodybag” (“Warpath” *Axis* 131) of war. Even when a technological agent is not specifically mentioned, its effects can still be detected: “the outer epidermis eats itself” (“Frogs” *Soundings* 29) as a result of pollution, or the spectre of mining that remains long after the mine is closed:

I went to see the golden hill
but it had all been mined away
all that’s left is an empty bowl
of yellow gorse and rutted clay
 (“Mining Lament” *The Radio Room* 32)

While the bulk of natural imagery in McQueen’s work is more sensual than activist, the predation of technology, and its encroachment on the natural world, is a continuing thread. Technology’s separation from the natural world is emphasised in the aluminium smelter of “Tiwai Sequence” (*Markings* 40-43). While much of the poem is straight factual, industrial information

.... Petroleum coke from the USA
is ground and heated and mixed with liquid pitch
to a hot black paste, pressed into one-tonne carbon blocks
and baked at 1150 degrees centigrade.

the setting of the poem is that of a guided tour, a glimpse into another world; a world that cannot be navigated easily or at will. One must be herded through it, with an interpreter and equipment to keep it at a safe distance:

The air is grey and dry. I assemble at the smelter

with a couple from Australia,
two young men and the tour guide, Karen.
We are issued with safety hats, glasses and respirators.

The image is clear – the human animal is now in a hostile environment, one inimical to its natural habitat. Furthermore, when the tourists try to connect the technology to nature, by asking about atmospheric pollution, “Karen smiles blandly.” There is no answer, and none is really expected. When a second attempt at connection is made near the end of the poem, an answer to an unasked question, the reader can sense insincerity in abruptness:

‘The Company makes every effort to preserve the habitat
of rare dotterels breeding in the nearby marsh.’
The end. We are dismissed.

The same theme – the natural world made hostile to its inhabitants – is apparent in the more conventionally elegiac “Frogs”. “The atmosphere is thinning – / the world is getting dirty” and the effect of this on the native species is yet to be determined. “Gone the ivory frog of the arum lily / that turns brown to match the dying blossoms?”

From the perspective of the technologist in McQueen’s poems, the natural is both something to be exploited and something to be placated – “the landscape is caged by powerlines” (“Rock Poem, Carey’s Bay” *Homing In* 52) – and the more of the first and the less of the second that can be done, the better. Yet despite this encroachment, which “takes place in shallow time” (“The Mess We Made at Port Chalmers” *Axis* 34), the natural world is shown as triumphing in the end, when “in deep time, the trees have already recovered the hills / and the machines rust”.

That technology intrudes on and somehow (at least temporarily) pollutes the natural world is an unoriginal concept and a fairly trivial observation to make about any ecologically sympathetic poem, and yet in McQueen’s body of work this observation is less an end in itself than an

uncomfortable ambiguity. This is best observed in the poem “Warpath”, which alternates verses between a nightmarish description of war and a pastoral future when the conflict is over.

Pin blitz, loop gas cluster. Atomic moth friendly, mother of germ battle,
liberation flame. Shift deadline communications, lob germbody fury, smart
carpet bluff. Spill bodybomb, cripple drift, shift liberation deadline.

The flowers appear on the earth
the time of singing birds has come

The pastoral verses are limited in their imagery – rain, flowers, birds – and each image is repeated several times. In contrast, the technological dystopia of the wartime verses is much more richly imagined, crammed and active; an in-your-face barrage of imagery that overwhelms the dreamier tone and pace of the nature-based interludes. This strength of technological imagery is present in many other of McQueen’s poems, for instance the “Tongue-stump of headland bandaged with concrete, / Obliterated beaches stacked with chopsticks” (“The Mess We Made at Port Chalmers”). Even the tumbling rock of “Fallout” (*Anti Gravity* 30-31) is not allowed to be a purely natural disaster, but a metaphor for nuclear war, and it is frankly more interesting because of it. Technology may be presented as a moral and aesthetic sink, but it is frequently more compelling than the natural images. The ambiguity caused by this disparity between judgement and presentation is underlined by the possibility of neutralising technology – distancing it from the earthly, human natural and thereby reducing its capacity for harm. McQueen’s access to and use of scientific language points in the direction of this neutrality: the sympathy between the Romantic natural and the scientific natural is such that an aspect of technology is able to connect the two naturals in a positive rather than a negative way.

Reconciliation of technology through science

In writing about the world around them, poets often tend towards the natural rather than the scientific. They are more fluent in the imagery of the former, and reconciling that with a new and complicated language – the “mysterious segregation of science” (Midgley 59) – can be difficult. Yet the two interpretations of the natural are capable of being reconciled if a midpoint can be found between them. A metaphor for this can be seen in the particular visual perspective of McQueen’s “Rock Poem, Carey’s Bay”, when the author is at a midpoint between the earth and sky, on a large rock overlooking the coast.

Yet there are times & places such as

on this lichen covered relic in the sun
above the sea & Aramoana that I discover

both space & an anchor to the earth,
an invisible grid of reliable perspective

amid an expanding universe of
thistledown.

Yet achieving this balance in perspectives cannot rely solely, over a number of poems, on simple geographical positioning. It is impossible to achieve a sustained reconciliation between different viewpoints without understanding. One cannot productively assimilate a language that is no more than a barrage of unfamiliar sounds – there must be meaning attached to syllable. Poetry that uses scientific language at random and without sufficient understanding is no more than pretentious gobbledygook, incomprehensible both to those who are familiar with scientific language and those who are not. It is here that McQueen has the advantage over many poets – she has easy access to someone for whom the scientific language is a primary method of communication.

Many of McQueen's poems reference scientific concepts as part of the author's descriptive language. This interest in and inclusion of science – especially cosmology – is due in part to McQueen's physicist brother Malcolm.

Malcolm is an astrophysical computer whizz kid.
he brings me these factually established things
of intense imagery, because nobody's got a shit show
of actually seeing them let alone think of them
in ordinary terms. so the physicists are
metaphysical poets nowadays
(“Particles with Naked Beauty” *Wild Sweets* 24)

If physicists are modern poets, can modern poets not also be physicists? “Poetry is transcribing the world. It's like pattern recognition, which Malcolm is doing with physics,” says McQueen (O'Brien and Cross 91). This co-option of an alternate language with which to describe the world is reinforced by the outside influence of scientific research as it impacts on McQueen. Her wide scientific exposure is often referenced in her poems:

I heard on the radio
a scientist wants to make a crack
reaching to the centre of the earth.
(“The Fairies Rattle Their Spoons” *Fire-Penny* 25)

These outside sources may be juxtaposed with other natural images, such as in “Gossamer” – “Readings layer themselves across my mind / from Boulton's journal and from the *Scientific American*” (*Markings* 57) – where quotes from the diary of a nineteenth century explorer (John Boulton's *Journal of a Rambler*) are contrasted with the latest physical research. And the precision of the reference in “Particles of Naked Beauty” is in itself an example of how rarely the

poetic and scientific languages coincide, due in large part to the modern compartmentalisation of intellectual fields:

Nariman B. Mistry, Ronald A. Poling & Edward H. Thorndike
wrote an article entitled 'Particles
with Naked Beauty' in a scientific magazine.
very few poets see this sort of thing.

Very few poets *do* see that sort of thing. The languages of the two disciplines are almost entirely separate, and it doesn't help that the modern public tends to perceive both the language of poetry and the language of scientific research as being both difficult and obscure. But for the poet who is confronted – and fascinated – with a jargon not her own, the assimilation of an alternate imagery in a profession that subsists on imagery must be a temptation too pregnant with possibility to ignore. McQueen occasionally references an explicit source or touchstone such as *Scientific American*, but she is also confident in using this alternate terminology on her own recognisance, as it were. Her exposure to the language of her brother's work has given her a scientific vocabulary: "I never write *about* physics. It is just a language I am familiar with and use I see physics as trying to find the flavour of things rather than simply describing them" (O'Brien and Cross 91). And the flavour and language of science has become an integrated and readily accessible part of her vocabulary:

nowadays science is pure poetry
all the particles bounce & decay
sweetly & sure as seeds
("Quark dance" *Anti Gravity* 26)

This scientific vocabulary is closely linked to imagery and sense, the quarks that "come in such colours & flavours" (ibid.). The images may reinforce each other directly, as in the dual structure present in "the tiny ladder of the DNA/ the mighty spiral of the Milky Way" ("Axis" *Wild Sweets*

17), or indirectly, where vocabulary and image are linked, for example, by their movement – they ripple and fluctuate:

This wooden house is rippled with seasons.
Today I have read that the arrangement of matter
reflects a pattern of quantum fluctuations
(“Bluff Song (ii)”)

although the connection between the two is somewhat disjointed. A more successful attempt is in the “quark soup” of

small expansions
a universal soft bursting
in negative time
reforming &
simmering gently
(“Pop Song” *Anti Gravity* 9)

or the casual analogy in “Particles with Naked Beauty”, where an unlikely possibility is described as being so remote “it’d be about the same as seeing a boson”.

Although not boson-rare, it is a lot easier to find negative images of technology in poetry than it is to find positive representations of science. As discussed above, McQueen herself has written poems lamenting the effect of the industrialised world upon the environment. Yet the positivity and beauty inherent in her use of scientific vocabulary speaks to the gulf in her presentation of science and technology, which tend towards mutually exclusive moral and aesthetic states. There is however an exception at the heart of the dichotomy. The earthly natural and the cosmological natural are linked by the idea of flight, which provides a consistently positive technological image in McQueen’s poetry.

Flight, freedom and story:

In many of McQueen's poems, flight – removal from the responsibilities and boundaries of the earth – equals freedom:

we have to get out into space
where there is no direction
there are no bearings
you don't need them
you just lie back with your arms up & float
see?
(“Anti Gravity” *Anti Gravity* 47)

This potential freedom can positively affect technology. The possibility of removal from the earth can cause technology to come alive, to move from its bastard hybrid status and into a completely natural sphere. “The telegraph poles / have remained alive” because “the poles are anchors / to the ground and vectors out of / the earth” (“Vegetable Garden Poem II” *Anti Gravity* 27). The former trees have not been subsumed by their transformation into the technological dead. They remain alive and rooted (anchored) to the world of the earthly natural, while their vectors into outer space implicitly refer to an escape into the cosmological natural.

When removed entirely from battlefield earth and let loose into the universe, the technology is neutralised. Possibly the best example of this is in “Princess Alice the Incredible Lady Gymnast”, where she builds a flying machine

& flew a little way
until a cloud of birds forced her down
in unfamiliar country

where a parliament of trees
condemned her for alienation from earth
& sentenced her forthwith
to dissolution
(*Anti Gravity* 21)

Looking back at the beginning of the poem to the machine's construction, the depiction of its technology is lighter and more whimsical (it is made out of "shells and feathers and fishing line"). The technology is unthreatening from the beginning, a storybook rather than an engineering machine.

In addition to the inference of escape and freedom, flight has other implicit benefits in the lovely parabolic image of "Beacon (Elements 2)":

I leap island to island,
altar to altar

Breathe life into things,
(*The Radio Room* 13)

We can see by its title that this poem is part of a connected series: the altar is connected to the altar on which the last of the Great Auks is sacrificed in "Altar (Elements 1)". Here, humanity's destructive presence, implicit in "Frogs", is counted a deliberate transgression:

On this we laid our sin, the Great Auk
that we killed for fear of sorcery

Our sin because
she was the last bird of her kind.

(The Radio Room 11)

In this second poem, the sin of ecological sacrifice is mitigated as we can imagine that the flightless Auk is resuscitated by a voice capable of flight. Noticeably, it isn't the technology of flight that imparts the breath of life, rather that flight is associated with a positive agent. Again the poems are more storybook than science – if the bird is killed to control the supernatural, its return to life is hardly less magical.

The connection of flight to technology and story is made all the more explicit in “That’s Incredible”:

last night I saw a man
falling without a parachute
that’s incredible
the story is
he drops a drum containing a parachute
out of a plane
& jumps out after it
(Anti Gravity 32)

In her essay “A Benign Psychosis”, McQueen comments that “We dream our situations in metaphor so that the waking mind can understand them at a deep level. We tend to put our precepts into poetry, fable, parable, to insert them at a deep level into the psyche”. The use of a story or narrative device is likely to be helpful both in writing and reading about unfamiliar concepts, and it’s understandable that a poet, initially more familiar with a narrative rather than a scientific approach, might choose to place the new vocabulary into a narrative structure. And as Paul Callaghan comments in *Are Angels OK?*, the reverse is also true. “Most scientists long to indulge in metaphor.... Language, and its power to entice and fascinate, are central to the world of science” (300).

For McQueen, when science meets the human element in a region beyond the reach of technology, the language of science becomes the language of story, as it does in “Baby” (*Wild Sweets* 33), a 13 line précis sketch of the life of Blaise Pascal. Similar to this is the retelling of how Kekulé discovered the molecular construction of benzene, dreaming of “the self-devouring ouroboros, elegant / representation of benzene’s veritable order” (“Edgeways” *Fire-Penny* 34). For McQueen, scientific jargon can then take on thematic relevance in the manner of storybook tropes like the poisoned apple or the dancing princesses

virtual particles
subatomic pumpkins
oh Cinderella
 (“Oh Cinderella” *Anti Gravity* 10)

and this all happens in the arena of flight – of the air and the cosmos and the field of astronomy. A world where the language of science is simile and metaphor and poetry, and technology assumes a positive character – if only by association.

More ambiguous in its depiction of technology is “Otherwise” (*Wild Sweets* 16), which describes “an opposite country/ to yours” where technology is not neutralised by removal but simply absent.

& I watch often
not traffic or television
but hour by hour the huge tide

If you were here with me, the poem says, this is what we would do; this would be the story of our lives together. In such an absence, where “stars assemble / in unfamiliar patterns”, the disruption of the natural by the technological does not take place. Only in this opposite country can any technological image be integrated into the natural (“the distant seismograph / of silver

peaks”) without disturbance to that order (the seismograph reflects geological turmoil, but does not instigate it.) And yet even in “Otherwise” there is a whiff of constraint, where the “big chained rocks hold back / the same Pacific ocean”. While there is no image of flight associated with the technological here (the flocks of terns are wholly natural constructs) there is a deliberate turning away from the technological in favour of the natural – yet the chained rocks holding back the ocean show that this denial of technology is only a qualified success. In an earthly environment, technology is inescapable, and its negative qualities are more pronounced. Only flight can neutralise it, can *humanise* it into a new language of natural narrative.

If flight is associated with the neutralisation of technology, it is also associated with the transformation of the natural.

the penalty for infringement of the laws of gravity
being as everyone knows

summary
translation
into air.

(“Princess Alice the Incredible Lady Gymnast”)

Princess Alice may be sentenced to dissolution, but anyone remotely familiar with physics knows that energy and matter cannot be dissolved; they can only be transformed. The earthly Alice may cease to be, but her constituent particles and energy remain in the universe; the anatomy of particles is linked to the anatomy of flesh, becoming more tightly and linguistically linked. Alice is transformed from the earthly to the scientific natural, just as technology links the human to the cosmological. This isn’t presented as a horrifying thing, as equivalent to biodiversity loss or aluminium smelters. If anything, it harks back to the natural transformation of the titi hearts – both the muttonbird hunters and Princess Alice have eaten or otherwise absorbed the power of flight, and it has transformed them.

It is this linkage, the dual anatomies of the natural world, connected by an uncommonly neutral technology, which provides the most interesting of McQueen's scientific perspective. Through flight, her view of an encroaching technology is elevated above the merely commonplace. Costello referred to "modern nature" as a point of dissonance, yet while the conflict between nature and science is a valid Romantic response, it is not the only response. Science – and its application technology – is an increasing part of life, and has an increasing interaction with nature. Poets such as McQueen have the opportunity to engage with technology in new and different ways, to create a "modern nature" without dissonance. McQueen, with her dual languages of the Romantic and scientific naturals, has shown what the first step of this *rapprochement* may be: a technology of beauty and story, freed from the boundaries and limitations of what has gone before.

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