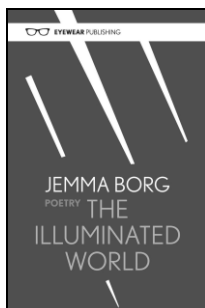


***THE ILLUMINATED WORLD***  
**A DIALOGUE BETWEEN SCIENCE AND POETRY**  
**KAY SYRAD ASKS THE QUESTIONS OF JEMMA BORG**



*“Language has properties under pressure, as poetry demonstrates. It behaves like a material entity.”*

Jemma Borg studied evolutionary genetics at Oxford and has worked as a science editor, research manager and environmental campaigner. She won the New Writing Ventures Award for Poetry in 2007 and was a resident at the Leighton Artists’ Colony at the Banff Centre, Canada in 2009. She lives in East Sussex with her husband and young son. *The Illuminated World* (Eyewear Publishing, 2014) is Borg’s debut collection.

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KS: What is so compelling in this magnificent and assured first collection is, I think, the way you observe the world with a scientist’s precision (noting function, tracing descent) whilst *at the same time* allowing yourself to be transported across the sky by a soaring passion for the world’s mysteries. (“There were some things / of which he could be certain. The rest was love”, *The Mathematician*). Would you say that there is a tension for you between the rival belief systems of science and religion that provides a driving force in your creative work?

JB: I’m not sure I would say there’s a tension between science and *religion*. I was exposed a lot from an early age to the Bible and hymns, but I think the important thing may be that ‘love of the world’s mysteries’ that you point out. I tend now to think of science and *poetry* in some kind of opposition because they are such different systems of thought in terms of their philosophical roots and development, but essentially it is this love of what is unknown that is common to both and which forms my motivation as an individual: how can we, and indeed is it possible to, understand this world we are embedded in. As far back as I can remember, I’ve been interested in science for this reason, but I was also intensely interested in reading and I will still read anything, any genre, any subject, from technical journals to classical literature. I loved discovering things about the world and myself, and gradually I found that the interesting thing was that writing helped with this, that it was a process which could also lead to all kinds of discoveries.

KS: Time is a strong feature of these poems; one feels the dynamism of travelling back and forth between ancestral and present conditions. With you, we fly, circle the earth, occasionally coming down in rain or birds or tears, as in *As flamingos at the water’s edge*: “these new tears, which fall as airships do / – in a slow, slow, infolding crash –”. All the while, your scientific knowledge (and method) is seamlessly woven in (reminding us of the importance of distinction itself, for example: “was it acid / or was it sweet? It’s a distinction important to make / as between *absence* and *emptiness*” (in *Bluebells*). What can you tell us about how your research into evolutionary genetics plays a role in your poetry?

JB: Studying evolution gave me a strong sense of time at a large scale, over millions of years, and thus a sense of the transitory and recent appearance of our own species. It may actually be

methodology that I've brought across from my scientific training. That, and an exposure to the rhetoric of scientific argument. I would say scientific texts are riddled with provisional features: parentheses, caveats and suppositional phrases. This tends to make for a more complex syntax. As the poet Miroslav Holub has said, in science words are an auxiliary tool and mean absolutely specific things, whereas in poetry, words have layers of meaning and connotation and language itself must *burn*. I think poetry actually does both: it is precise but also controlled and accurate in the connotations it draws in.

My genetics research was quite open-ended and exploratory rather than the stereotypical construction of hypothesis followed by experiment. I worked with networks of genetic relationships, and my writing process has become similar: an experimental endeavour to uncover connections and resonances between words and meanings, which language often seems to cover rather than reveal. I feel that the 'real meaning' of a poem for me almost has to be tricked into appearance, with a sense that what I don't readily know contains the real, authentic life, rather than the actual life I appear to be living but which I mine for something deeper. So, I write lots of raw material, then play with it, manipulating, rearranging, sifting and sorting, charting which bits of text are related and seeing what happens when I put them together. Language has properties under pressure, as poetry demonstrates. It behaves like a material entity.

KS: Your knowledge-gathering extends to a very interesting analysis of what we try to do with language at the point of grief (in the elegies *Can I only tell you about the rain?* and *Goodnight in Bethnal Green*: "after / I'd fed you soup and kissed the stubble / on your cheek and dared to speak those words / the inefficiencies of love withhold", and *A Summer Diary* is a sustained, tender yet unflinching scrutiny of multiple IVF treatments: "*Stay if you can ... I will surround you with pansies and tulips / and the blue iris and the sky. / or do what you must: I am willing to be broken*". From this particular point in the book, it seems that time (evolution) has just slowed right down, and there is a distinct shift in tone or even world-view. It is as if the inquiry has been made into science; now, with the strength from that knowledge, you can make your inquiry into the soul. Is this an accurate assessment?

JB: Yes, there is a hinge in the book at that point. In some senses, the book is an autobiography of ideas, moving from science towards questions that became more about having a further responsibility not only to knowledge itself but the attempt to embody a way of life that is responsible and also exploring the idea that love is somehow redemptive. They say at the end of life, that's all that really matters: the people you love. It would be nice if we could extend that and include our planet and other organisms in what we love. I was aware of an idea constantly rearing its head: that how we think matters because it generates the world we live in and how we think about ourselves and others in that world. What we believe matters because it affects how we act.

Most scientists I would say are personally very much into the humanistic, secularist view that we must live with one another in a fair way, conscious, aware and valuing each other and ourselves, but science as a philosophy does consider questions of ethics to be outside its field of reference. Could we also say most of us are probably not thinking enough about the responsibilities that come with our rights and freedoms? It reminds me of the writing process. At first, we must allow ourselves total freedom to explore, it's necessary to our imagination. However, the end product must have gone through a critical process. Or in other words, we don't want to let loose the products of our imagination on the world without careful consideration. And one of the imaginative products of my body I began trying to release into the world was a child – which became a process in its own right that seemed to relate more widely to some of these other questions about 'ethical living'.

KS: The poems are meticulously crafted; you use a variety of forms (sonnet, ghazal, elegy, treatise); your similes and metaphors are not only stunningly rich ("they writhed like meltwater, the ripe machinery of grace", "Twilight is moving slowly along the ground / like the ending of a fable") but are themselves part of the inquiry:

an ecstasy of mind  
where *like* is *like* is *like* ...Dear metaphor  
– read ‘lover’ – we invented heaven,  
imagining a sky as a fish might the land:  
alien, beautiful on our tongue.

(A short treatise on a squid)

Can you tell us something about your approach to form and the technical questions of poetry?

JB: I have been fortunate to work with two poets who have inspiring views on form: Mimi Khalvati and Don Paterson. I was very clear as soon as I realised I wanted to write poems that I wanted to know about form. I couldn’t see how else to start engaging with poetry – to understand why poems are memorable and affecting and the ways in which poetry is its own art, different from prose. I’m not always looking to write in classical forms by any means, but there are two things I believe in: that language must sing and not be a dead weight, and that poetry is all about the discipline of the line (there’d have to be another discussion about the prose poem...) Then there is the idea that the completed poem should work as a whole, with each and every word part of that, as well as the syntax and form on the page. It’s a complicated business, but I think the emphasis on poetry being as natural as speech is helpful because we do all kinds of complicated things with language quite naturally in the way we speak.

By the time I was doing the final drafting of *The Illuminated World*, I had a baby and so a lot of the editing had to be done in my head which ended up being very useful: what stuck in my memory and could be recited is what remains, with anything too fussy to remember exactly edited ferociously or deleted. A lot of redrafting of course is about getting form and content to click together: how a poem sits on the page, even if not using a specific classical form, is intrinsic to how the poem thinks itself along and comes into being. It’s not an issue of imposing form on content, but about a long process of discovery.

KS: Your poem about the squid, and your phrases “The rains’ lesson was this” and “the rain is all throat” remind me of Elizabeth Bishop, who loved Darwin. A number of contemporary women poets have been drawing on scientific knowledge (Jo Shapcott, Ruth Padel, Daphne Gloag, Lynne Wycherley, Siobhan Logan) – are there any particular science-trained poets that you admire or who have influenced your writing?

JB: I have to confess to being easily irritated by poems ‘about science’. There’s a complex relationship to be made between scientific knowledge and the kind of knowledge which poetry offers. I think it’s too simplistic to use science just as a kind of myth kitty. Jo Shapcott says that she doesn’t try to write *about* science, but that it creeps into her writing just as anything else in a lived life feeds into the work in its own way. I think that’s right. You have to keep filling the tank with all kinds of things and then let the imagination do what it will with it all. Imposed intentions of all kinds are problematic.

An important thread for me is from the metaphysical poets, particularly John Donne. There wasn’t the division between art and science that exists now – you could know about both (and have the time to do so) and it shows in the rich complexity and conceit making of their writing. One of the first more modern poets I felt drawn to was indeed Elizabeth Bishop – for her detail, precision and a certain wariness, a testing of her ideas. She worked and reworked. There’s something of the scientific method in that and in her provisional and complex poems – even if she wasn’t a scientist. Wallace Stevens would be another example.

I have a poem by the aforementioned Miroslav Holub, who was an immunologist, above my desk: “even if there’s only / the hollow wind, / even if / nothing / is there, / go and open the door. // At least / there’ll be / a draught.” Whatever his subject matter, I feel he wouldn’t have written as he did if he hadn’t been a scientist. His crystalline openness, carefulness and humility reminds me of Primo Levi

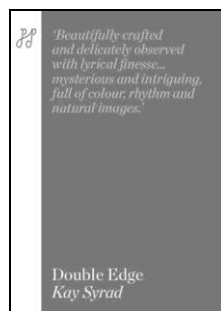
(who was a chemist). I've always thought Alice Oswald has a scientific kind of imagination in her aim to vocalise nature rather than her own voice per se (likewise Les Murray in his *Translations from the Natural World*) and she has some interesting 'science' poems in *Woods Etc.* D H Lawrence's openness is attractive, as well as his approach to writing about animals: visceral and responsive, without that strong division between 'observer' and 'subject'. There's also a lot to be said for the 'poetry' of some scientific texts – Charles Darwin's *The Origin of Species* is a good example: though technically dense, it is infused with generosity, personal insight and a love of nature.

KS: And finally, what are you working on at the moment?

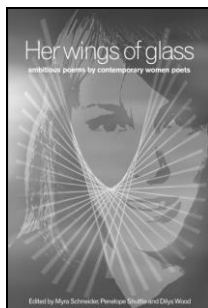
JB: The next book! Which means, largely, the painful process of reinventing myself – setting new challenges and dealing with dissatisfactions. I think, perversely enough, I may want to tackle more science content but I'm also after a book which is eclectic in terms of tone and form. I'm also wanting to take the plunge and write about motherhood even though that's a theme both controversial and rather popular right now. I do believe in taking risks and, as ever, I'm trying to work out what I can get away with and what I can't.

KS: Thank you.

JB: Thank you, Kay, for the opportunity to answer these interesting questions.



Kay Syrad is a regular contributor of reviews and articles to ARTEMISpoetry and she is currently co-editing *Envoi Poetry*. Her own collection, *Double Edge* was published by Pighog Press (2012); her novel, *The Milliner and the Phrenologist* (2009) was published by Cinnamon Press, also the publisher of her new novel *Send* (Autumn 2015). Her artist's book, *work of the lightship men: 1000 tasks*, was recently bought by the National Maritime Museum for their permanent collection. [www.kaysyrad.co.uk](http://www.kaysyrad.co.uk).



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