Messengers from the Stars: On Science Fiction and Fantasy

Nº 1 - 2016

Poetry and Science Fiction – Richard Brautigan's poem "All Watched Over By Machines of Loving Grace" as an ecological dystopia

Nuno Marques

Mid Sweden University

Abstract | In this paper I argue that Richard Brautigan's poem "All Watched Over By Machines of Loving Grace" is an ecological dystopia in the science fiction genre. Brautigan's poem creates a post-pastoral image of a cybernetic ecology monitored and controlled by machines. The poem's internal structure and tone provide an ironic commentary to its theme of a utopian project, highlighting its internal conflicts and showing its impossibility. I argue, therefore, that the poem is a critique of the ecological utopias of the 60s and can be read accordingly.

Keywords | Brautigan; Cybernetic Ecology; Ecocriticism; Ecotopia; Science-Fiction.

❖❖

Resumo | Neste ensaio apresento uma leitura do poema "All Watched Over By Machines of Loving Grace" de Richard Brautigan enquanto distopia de ordem ecológica do género de ficção científica. O poema de Brautigan cria uma imagem pós-pastoral de uma ecologia cibernética monitorizada e controlada por máquinas. A estrutura e o tom do poema oferecem um comentário irónico ao tema de um projeto utópico, demonstrando a contradição sob a qual assenta e a sua impossibilidade. Dessa forma, leio o poema como uma crítica das utopias de ordem ecológica dos anos 60.

Palavras-Chave | Brautigan; Ecologia, Cibernética; Ecocrítica; Ecotopia; Ficção Científica.

Poetry and Science Fiction

Science fiction is mainly composed by novels and short stories although poetry has historically been the language of philosophy and (natural) sciences, either using scientific models or themes in the poetic structure or even in poetic devices. Amidst the blurred lines of the science fiction genre, one can remember poems found in novels, but not so easily science fiction poems, a definition of which is still to be devised. Frank Herbert's *Dune* offers many examples of poems in the main narrative, such as the Zensunni song Leto sings in *Children of Dune* ("Nature's beauteous form / Contains a lovely essence / Called by some -- decay" (29))[1]. Herbert also wrote poetry published after his death by his son in an anthology entitled *Songs of Muad'Dib: The Poetry of Frank Herbert* (1992). Joe Haldeman has published a book of poems entitled *Saul's Death and Other Poems* (1997), which includes "Machines of Loving Grace", in a clear reference to Brautigan's poem from 1968 discussed in this paper. Other prose authors as Ray Bradbury, Ursula K. Le Guin, Philip Joseph Farmer, Isaac Asimov have written science fiction poetry, and even an anthology of Sun Ra's poems entitled *The Planet is Doomed: The Science Fiction Poetry of Sun Ra* (2011) explicitly addresses this particular type of poetry. In fact, such as the poetic imagination reflects upon the scientific questions of its time, nineteenth century poetry dealt with the theory of evolution as the seventeenth and the eighteenth centuries had dealt with Kepler, Galileo and Newton's theories; twentieth century poetry in the Western world was concerned with relativity theory, cybernetics and ecology. Science and poetry can interchange models, systems, metaphors, or worldviews as Coleridge's organicism and Pound's vorticism show. In the history of North-American literature, this relation has largely followed Emerson's model with which later poets entered in dialogue, and where Brautigan has a distinctive stance.

In the United States in particular, poets of the Beat Generation and the San Francisco Renaissance have shaped a poetic response to science, promoting an early environmentalism and exerting a strong influence in the first environmental movements of the 60s. Poets as Allen Ginsberg (*Plutonium Ode*), Gregory Corso (*Bomb*) and others have directly addressed the consequences of nuclear energy, in the form of elegies or satires, in their critique of the Post-War Western society. Gary

---

[1] The full poem may be read in Herbert, Frank, *Children of Dune*, Ace Books, New York, 2008, 29

Snyder, another influential figure in the countercultural movement and in the Deep Ecology Platform, proposed alternatives to environmental disastrous uses of technology, not only in his poetry, but also in the 1970 essay "Four Changes", grounded in an Ecotopian model of "a new ecologically-sensitive harmony-oriented wild-minded scientific-spiritual culture" (99). This integration between science and spirituality, and an awareness of the interdependent relation between human and non-human beings and the world, is one of the tenants of the counterculture environmental consciousness. Collaborating with Snyder in the aforementioned essay, and adopting some of the defining literary characteristics of the countercultural movement, such has the open form and environmental activism, Richard Brautigan's work is also a critique both of the counterculture's environmental concern and the project of a technological utopia.

In North-American literature, scientific and poetic knowledge are gathered in the figure of the poet since Ralph Waldo Emerson's essay "The Poet"[2]. Emerson's poet knows "astronomy, chemistry, vegetation, and animation" (222) because he is attuned with the Universal being, and "in every word he speaks he rides on them as the horses of thought" (222). For Emerson there is no rigid separation of knowledge. Because language is a source and a medium for knowledge, poetic cognition is also scientific knowledge. Emerson departs from Coleridge's theory of organic form, which can be considered as a biological theory of form. Emerson also stresses the dynamic character of the poetic process itself in the relation between the poet and the world, which would later find echo in Olson's "Projective Verse", and its fundamental postulate of the importance of "the process of the thing, how the principle can be made so to shape the energies that the form is accomplished" (Allen 388). The concept of process as dynamic is also present in A.R. Ammons 1993 poem "Garbage" that deals with "the scientific and materialistic notion of the / spindle of energy" (24). Reclaiming "Garbage" as a scientific poem, Ammons follows Emerson's focus on the process, which in this case is interfered by the material nature of garbage and of the poet's body, affecting language. Ammons, therefore, combines both Emerson's organicism and poem as process with Olson's material implication of

---

[2] In the essay "The Poet" Emerson states that "the poet alone knows astronomy, chemistry, vegetation, and animation, (…) He knows why the plain, or meadow of space, was strewn with these flowers we call suns, and moons, and stars; why the great deep is adorned with animals, with men, and gods; for, in every word he speaks he rides on them as the horses of thought" Richardson Jr., Robert D, *Ralph Waldo Emerson Selected Essays, Lectures, And Poems*, s.l. Bantam Books, 1990 (222).

poem and body in the physical world. On the contrary, Richard Brautigan's *faux naïve* poetry is not concerned with scientific language, but rather with discussing the consequences of science. Taking science as theme rather than model, his poetry critiques science, narrating its social and moral consequences. In the dawn of cybernetics, complex systems theory, and ecology, Brautigan was the poet-in-residence at the California Institute of Technology, in Pasadena, California. From this experience he also wrote the short poem entitled "At the California Institute of Technology" included in the 1968 work *The Pill versus The Springhill Mine Disaster*. It reads: "I don't care how God-damn smart / these guys are: I'm bored / It's been raining like hell all day long and there is nothing to do" (23). This poem is a comment to Emerson: poetic and scientific languages have different social functions. In that time in January 1967, Brautigan wrote "All Watched Over By Machines of Loving Grace" as a direct result of the time he spent with scholars and students of the Institute, in which the critical function of poetry is assumed.

The most relevant examples of Brautigan's engagement with science can be found on the *The Pill versus The Springhill Mine Disaster*, particularly on the poem here discussed that is concerned with the scientific utopias of the 60s in the United States, which created cybernetics, ecology, Silicon Valley, and the Internet. This poem is an elegy to scientific optimism: the balanced relation between humans and non-humans and nature in an environment created by technology. However, because each of its three stanzas is introduced by an ironic commentary, that project is made frail and laughable, devoid of its verisimilitude and pungency. The poem, in fact, offers a dystopian vision in a critique of a relation with nature mediated by technology, a common theme in science fiction.

Dystopian Ecotopia

The three strophes of "All Watched Over By Machines of Loving Grace" have different intensities in tone and the entire poem presents an upward movement that portrays the relation with nature, mediated by machines and by a communicating network, to the final moment of bliss, careless and joyful integration with nature. This progression represents the literary motif of retreat into nature, common in North-American literature that Brautigan also addresses in other poems of the same work, as

"Let's Voyage into the New American House" (78), in which a house dissolves into nature, walls running into mountains, doors flying with clouds.

This thematic line is portrayed in the image of the meadow in the first strophe, which is substituted by the image of a forest in the second strophe and finally by ecology, which functions as a metaphor for the integrated relation between humans, non-humans and the world in the last strophe. In growing circles, the poem moves from the meadow, a figure of the cultural landscape, geographically close to rural areas, to the forest, a figure of a wild place, to ecology, meaning the entire (eco) system composed by the previous ones. It not only moves away from society into wilderness, as, for instance, Thoreau's *Walden*, but also it moves closer to a holistic conscience. In this sense, it rereads the escapist pastoral idealization of retreat into wilderness and offers what Terry Gifford characterizes as "a retreat from politics into an apparently aesthetic landscape that is devoid of conflict and tension" (10). In fact, Brautigan also rereads the pastoral literary device itself, transforming nature into environment as the term 'ecology' shows. Accordingly, 'ecology' in this poem is a metaphor for a blissful relation with nature, an aesthetic and spiritual landscape without conflict. The final strophe of the poem not only rewrites the motif of Arcadia as the place of communion with nature, it also relocates it to an environment built by machines, a replica of the outside environment. Inherent to this project, a critique of the technology that might enable it and its environmental commitment bring Brautigan's poem into the lines of ecopoetry.

Ecopoetry is defined by Scott Bryson, editor of the 2002 collection *Ecopoetry: a Critical Introduction*, as having "an ecological and biocentric perspective that reflects the interdependent nature of the world; a deep humility that sustains the positioning before the relations with human and non-human nature, in the poem" (2). These aspects reflect in higher and lower degrees other definitions of nature writing or environmental writing. Ecopoems can or should exhibit "an intense skepticism, as seen in the condemnation of overtechonologized world" (2). It is precisely this condemnation that defines Brautigan's poem as a dystopian vision of cybernetics and the possible relation between human and non-human beings and the world mediated by technology that enable it to be considered a dystopian Ecotopia. In this sense it also enacts a passage from pastoral poetry, or nature poetry, and a post-pastoral version, or ecopoetry. Within its environmental concern it rereads the pastoral tropes

and questions the existence of wild nature, taking the pastoral model and applying it to an artificial replica of a supposedly wild nature.

What would otherwise be a laudatory poem is made frail by the second line of each strophe, which functions as a comment to the utopian project announced in the following lines. Read between brackets at the beginning of each strophe, these commentaries are the only instances in the poem with exclamation marks, creating tension and anxiety in obvious conflict with the rest of the lines. They are a second voice within the poem, stressing the urgency of this utopian project. One cannot help to read in these exclamations – "and the sooner the better!" (l.2); "right now, please!" (l.10) and "it has to be!" (l.18) – an underlying disturbance which, although apparently praising the benefits of a closer relation to nature mediated by technology, echoes an escapist desire and at the same time offers an ironic comment to the utopian project enounced in the poem. In this sense, and because it highlights the internal contradiction of such project while also ironically commenting it, Brautigan's poem might be read as a dystopian Ecotopia in the poetic form.

Ecotopias of the 60s

"All Watched Over By Machines of Loving Grace" also critiques the ecological utopianism of its time. It contaminates the desire for a spiritual communion with nature fundamental to the environmental movements of the Deep Ecology Platform, by postulating mediation by technology as its necessary condition. By doing so it also exposes the paradox of this mediated relation: nothing more than simulacra, it reconfigures the original model to match the copy. This ecological utopianism is, in fact, present in both the environmental movements, which postulated a non-intrusive technology, and in the technological solutions of Silicon Valley, with less polluting technologies, connecting networks between objects and beings. The poem focuses particularly on the role played by the concepts of ecosystem, communication and network in this utopian vision of the future to show that it presupposes an eschatology of the scientific progress, whose final result is the communion between human and non-human beings and the world. Focusing on these concepts turned metaphors and images in this poem, Brautigan also brings a lack of belief and a disillusion with the environmental project itself. If that mediated relation is dependent on a technological fix, what are its conditions of possibility? Brautigan's poem mainly shows the

contradiction of this scientific utopia that aims to replicate the models and forms of nature through cybernetics and to connect human beings with nature through technique, without considering that technique also constructs knowledge and social and political structures. The third strophe of the poem illustrates the ideal of this utopia, according to which although human beings would become cybernetic beings and a part of a communication network; they would not become cognitive agents of that network through which information is processed and transmitted, but rather they would have their biological nature reinforced. In fact, this is an internal contradiction: in order to return "to our mammal / brothers and sisters" (1), human beings have to transcend the human gender; they have to become machines. In Brautigan's model of cybernetic ecology, machines preside over the balance of the system, they communicate "mutually / programming harmony" (1). Machines are both mammals and computers and pine trees, they are electronic devices, because they communicate in a network of which they are a part of and in which they are "joined back to nature" (1).

The contradiction of this scientific utopia lies in the impossibility of a non-mediated relation between human and non-human beings with nature because this ideal network would in itself be a closed environment, a replica of nature created and enacted by communicating machines. Not only would this scientific project postulate another type of human, different from the idealized human of the pastoral trope found in the poem, it would also fail to connect human and non-human beings and nature, since it would in effect create an artificial environment where both would live. Therefore, this imagined joyful life in a Garden of Eden is rendered impossible or at least unsubstantial by its own nature.

Furthering the ironic post-pastoral vision created by technology and particularly by information networks offered by Brautigan, Haldeman's poem "Machines of Loving Grace" gives a more straightforward image of the end of joy "while machines hum (…) / while cursors blink with mindless patience, / while screens fill up with easy blather" (l.9-11)[3]. However, Haldeman's epitaph for the last typewriter ever to be produced falls short of the narrative possibilities of Brautigan's critique of a utopian vision, precisely because Brautigan addresses the environmental concern that lies behind the scientific utopia critically portrayed in the poem. "All

---

[3] The full poem is available at: http://machinesoflovinggrace.com/molg.htm

Watched Over By Machines of Loving Grace" is, therefore, directly engaged with this major theme of the science fiction of the 60s. However, contrary to other works of this genre that might be considered *positive*, such as Ernst Callenbach's *Ecotopia* (1975) or Frank Herbert's *Dune* (1965), because they offer and discuss technological possibilities for an environmentally committed organization of society, Brautigan's poem only imagines "sophisticated new technologies" (Robinson 11) in order to highlight their consequences and the inherent contradiction of their use towards a more balanced relation with nature.

Other Dystopian elements

Within its dystopian line the poem raises other questions, such as the radical transformation of nature according to human purposes, a pressing question particularly in our present time, in which the environmental crisis has reached a peak of no return. The consequences of the interaction of the human species with the planet can now be seen at the geological level, described by the concept of the Anthropocene, which as Crutzen argues is, "in many ways human-dominated, geological epoch, supplementing the Holocene — the warm period of the past 10–12 millennia" (23). The Anthropocene concept fosters optimism and a general confidence in science that has the task to, as the Nobel winner puts it, "guide society towards environmentally sustainable management during the era of the Anthropocene" (23). In the same article the Nobel Laureate also proposes that to achieve this sustainable state there might be the need for "internationally accepted, large-scale geo-engineering projects, for instance to 'optimize' climate" (23). These arguments by themselves resemble a science fiction narrative much in line with fictional works such Arthur C. Clark's *The Sands of Mars* (1951), Henry Kuttner's *Fury* (1950), or Poul Anderson's *The Big Rain* (1954), in which terraforming and geoengineering are discussed. In fact, at the heart of the concept of the Anthropocene is a narrative on the consequences of human action on the planet, with variable beginnings, according to the higher or lower impacts of specific technological events. Some authors point out the agricultural revolution (Gowdy and Krall, 2013), the industrial revolution (Foley, 2013), or the first nuclear explosion (Zalasiewicz, 2014). A common perspective to these authors is that the Anthropocene concept is a narrative of the human presence on the planet, told by a historiography of science and

its consequences. This narrative situates the present time within a progression of technological events (Crutzen, 2002 and Foley, 2013). Malm and Hornborg (2014), in particular, have argued that the Anthropocene concept is based on, or supports, a progressive narrative of the human species in which, for instance, the creation of the fossil economy was already present, potentially, in the creation of fire; and that it was only a matter of time or conditions until human beings and technology evolved to that point. According to this line of thought, fossil economy is something natural, disregarding its cultural and social implications. These are also ultimately considered as natural, independently of what they are, because they were predicted by the potency present in technology itself. Opposing this naturalization of the unjust distribution of the environmental and social consequences of industrialization and capitalism, Malm and Hornborg argue that social inequality is, for instance, at the basis of certain aspects of the creation of the fossil economy. They stress that the exploitation of nature as well as of non-human and human beings by other human beings is not the consequence of the seeds of technology or science, but that it may be the ground that sustained the technological milestones of the narrative of human technological development. "All Watched Over By Machines of Loving Grace" does not explicitly address questions of social justice or of environmental justice. However, Brautigan's dystopian vision is an insightful commentary on the use of technology in the relation between human beings and nature, in a certain way foreseeing the inevitability of large-scale transformations of the planet.

In this particular aspect it is possible to read in "Watched Over By Machines of Loving Grace" the echoes of James Lovelock *Gaia* hypothesis, which postulates that the planet Earth is a self-regulatory system, maintaining homeostasis, adjusting itself according to variations within its composing elements. Although adopted by New-Age thinkers and environmental movements, the *Gaia* hypothesis is inherently anthropocentric since it naturalizes and justifies human intervention within the biosphere in order to, predating the argument that the proponents of geoengineering under the Anthropocene concept would bring forth 60 years later, 'optimize' the planet to regulate the biosphere. In fact, the Gaia hypothesis has been dubbed as "the cybernetic dream" (Sessions 300-1) since it assumed that cybernetics and ecology, working together, could understand and manipulate the biological mechanisms of life and of the planet. The same way, the contemporary Anthropocene concept expresses faith in science and somehow naturalizes human action and its disruptive action in the

environment, while at the same time providing it with a softened ontology, of which spirituality is cleansed and stewardship of the planet is secured. Taken to the limit, as Brautigan's poem shows, human manipulation of the planet would create an entirely artificial environment, which would replace its model. Within this cybernetic ecology, human and non-human beings would be nothing more that similes to their originals, which were probably lost in a nuclear winter or in a toxic landscape that was generated out of the creation of the artificial electronically-monitored paradise. Within this manufactured planet, whose artificiality is stated in the poem by portraying this ecology as cybernetic, or self-regulatory, the blissful relation between its constituents, animals and machines alike, also raises the problem of free will, like the one found in Vonnegut's *Player Piano* (1950), or dramatically enacted when the computer Hall takes over the starship in the movie *2001 Space Odyssey* (1968), for instance. In fact, the cybernetic ecology where the inhabitants of this dystopia live, controlled by machines which they have also become, is not the model of nature which it intends to replicate, but a system much as the domed city of the 1971 movie *Logan's Run*, in which perfect balance is maintained by a computer, and the optimal level of population through the forced death of those who reach the age of 30. In this 'optimized' nature, the return to an idealized natural state of being is impossible because machines always mediated it.

Dystopian elements in Brautigan's poem are conveyed by its tone, in the interference of the second line of each strophe that ironically frames it, and by its theme of a post-pastoral vision of a non-mediated relation with nature made impossible because it exists within a closed circuit created by the instruments of mediation. Commenting on the ideal of a technological solution to environmental problems and to an integrated relation between human and non-human beings and the world, adopted both by the first environmental movements of the 60s and by scientific research in the post-war Western world, particularly in the U.S., the poem frames its dystopian vision within the environmental concern thus becoming an ecological dystopia, or a critique of ecological utopias.

❖❖

WORKS CITED

Ammons, A. R. *Garbage.* New York and London: W. W. Norton & Company, 1993.

Brautigan, R. *The Pill versus The Springhill Mine Disaster.* New York: Four Seasons Foundation, 1968.

Bryson, S. *The West Side of any Mountain- Place, - Space and Ecopoetry.* Iowa: University of Iowa Press, 2005.

Callenbach, E. *Ecotopia.* Berkeley: Banyan Tree Books and Hayday Books, 2004.

Crutzen, P. J. "Geology of Mankind." *NATURE* 415.6867 (2002): 23.

Dinello, D. *Technophobia! Science Fiction Visions of PostHuman Technology.* Austin: University of Texas Press, 2005.

Foley, S. F., Gronenborn, D., Andreae, M.O., Kadereit, J.W., Esper, J., Scholz, D., Pöschl, U., Jacob, D. E., "The Palaeoanthropocene – The Beginnings of anthropogenic environmental change." *Anthropocene* 3 (2013): 83–88.

Gifford, T. *Pastoral.* London: Routledge, 1999.

Gowdy, J., & Krall, L. "The ultrasocial origin of the Anthropocene." *Ecological Economics* 95: C (2013): 137-147.

Haldeman, J. "Machines of Loving Grace." 1985. *Machines of Loving Grace.* Web. 17 Feb. 2016.

Herbert, F. *Children of Dune.* New York: Ace Books, 2008.

James, E., & Mendleshon, F. *The Cambridge Companion to Science Fiction.* Cambridge: Cambridge University Press, 2003.

Malm, A., & Hornborg, A. "The geology of mankind? A critique of the Anthropocene narrative." *The Anthropocene Review* 1.1 (2014): 62-69.

Olson, C. "Projective Verse." *The New American Poetry 1945-1960.* Ed. Donald M Allen. New York: Grove Press, 1960.

Richardson Jr., Robert D, *Ralph Waldo Emerson Selected Essays, Lectures, And Poems*. N.p., Bantam Books, 1990.

Robinson, K. S. *Future Primitive - The New Ecotopias.* New York: Tor Books, 1994.

Scigaj, L. M. *Sustainable Poetry: Four American Ecopoets.* N.p.: University Press of Kentucky, 1999.

Seed, D. *A Companion to Science Fiction.* N.p.: Blackwell, 2005.

Sessions, G. *Deep Ecology for the Twenty-First Century.* Boston and London: Shambala, 1995.

Snyder, G. "Four Changes." In G. Snyder, *Turtle Island.* New York: New Directions, 1974.

Zalasiewicz, J. E. "When did the Anthropocene begin? A mid-twentieth century boundary level is stratigraphically optimal." *Quaternary International* (2014): 1-8. Web. 17 Feb. 2016.