



**UNIVERSIDAD NACIONAL DE CÓRDOBA**

**FACULTAD DE LENGUAS**

**Licenciatura en Lengua y Literatura Inglesas**

**– Trabajo Final de Licenciatura –**

**“A Necessary Change from ‘Man’ to ‘Hommo Sapiens’: An  
Ecocritical Study of *Oryx and Crake* and *The Year of the Flood* by  
Margaret Atwood”**

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Córdoba, 2015

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## INTRODUCTION

It is undeniable that the deteriorating situation of the ecosystem is one of the hottest issues in our world today and indeed one worth contemplating in literary productions. Questions like the destruction of the forests, the extinction of species and the pollution of the air, water and soil have been increasingly attracting writers' attention. Ecocritical theories have developed as a consequence of the intervention and subsequent devastation that man is causing to the environment. In *The Ecocriticism Reader* (1996), Glotfelty defines ecocriticism as the study of "the relationship between literature and the physical environment", of the way ideas about nature and man's interrelation with the natural world are depicted in literary texts (xviii). In the introduction to *Ecocritical Explorations in Literary and Cultural Studies* (2009), Murphy asserts that literature is a "manifestation and shaping force of human experimental behaviour" (2). For that reason, it is essential for ecocritics to discern how man's attitudes towards other living creatures and the status of humankind within the ecosystem are represented in literary texts.

In an interview on her novel *The Handmaid's Tale*, Canadian writer Margaret Atwood said, "I believe as the Victorian novelists did, that a novel isn't simply a vehicle for private expression, but that it also exists for social examination. I firmly believe this" (1). Atwood's conviction is clearly embedded in her works. The novelist is well known for her thoughtful reflections on ecology, among other current subjects. Much of her production is characterized by the urge to warn readers about the consequences of environmental destruction. *Oryx and Crake* (2003) and *The Year of the Flood* (2009) are clear examples of this intent because both works show that humankind is altering the natural world in an irreparable way. Bearing this in mind, the present work aims at exploring *Oryx and Crake* and *The Year of the Flood* from an ecocritical perspective, using a comparative methodology, for they seem to be closely related to each other with respect to their settings, characters and themes.

A first approach to Margaret Atwood's *Oryx and Crake* and *The Year of the Flood* gives rise to certain questions –how does man interact with the natural world?, in which ways may ecological balance be recovered?, how do the protagonists of the novels in the corpus intend to protect or preserve nature?, what attitudes do they assume? Certain human practices, such as unrestrained sexual behaviour, abuse of technology, limitless application of science, consumerism and the resulting garbage production, just to mention some, are presented in Atwood's works as detrimental to the ecological equilibrium, and thus, as something to be changed. In *Oryx and Crake* and *The Year of the Flood*, different courses of action are suggested as possible ways of preventing an environmental catastrophe. I consider that both novels imply that a change in human behaviour is an essential step towards preventing an ecological devastation and redressing balance.

In this research, I aim at analyzing how the preservation or restoration of the equilibrium in the natural world can be achieved by changing some habits and ways of behaving which are intrinsically human, as the texts by Atwood reveal. In the first part of this paper, some ecocritical concepts which are relevant to the study of *Oryx and Crake* and *The Year of the Flood* will be explored. Then, the characters' attitudes and their relation to the environment will be analyzed to determine whether they contribute to improve or to worsen the precarious environmental situation through ecocentric or anthropocentric attitudes towards nature. Finally, it will be discussed what changes are suggested by Margaret Atwood in both works of fiction for a harmonious coexistence with the natural world.

## **THEORETICAL FRAMEWORK**

Many scholars sustain that it is anthropocentrism, humans' placing themselves on a superior level with respect to nature, which has led to the current environmental crisis. Fritjof Capra, in "Deep Ecology –A New Paradigm" (1995), calls for a change of paradigms, from the present anthropocentric archetype to an ecocentric one, considering that the first way of thinking has become obsolete under the current situation of the world. The anthropocentric worldview or shallow ecology sees man "as above and outside of nature, as the source of all value, and ascribes only instrumental, or use value to nature" (20). This paradigm has its roots in a mechanistic view of the world and of man as well as in a belief in unlimited material progress. The ecocentric conception or deep ecology, on the other hand, perceives the world as a network where every creature plays an important part and where human beings are "just one particular strand in the web of life" (20). The change Capra puts forward entails a spiritual and ethical transformation, a change in values that will determine humans' future attitudes towards the environment and towards themselves. Man ought to recover the spiritual awareness that he is one with nature and act accordingly.

The ecotheologian Thomas Berry goes along with Capra's views on the need to modify anthropocentric ways of thinking. He claims that a human-centered norm of reality and value, as he defines it in his essay "The Viable Human" (1995), leads to mankind's obsession with achieving its own comfort and well-being at the expense of exhausting all natural resources. Industrial exploitation, scientific and technological developments and a consumer economy have created the illusion of a wonderland, when they have actually been producing excessive waste and damaging elements, such as the soil, the water and the air, which are vital to the sustainment of the whole planet. Berry thinks that this state of affairs is threatening mankind's own existence, so it is essential for humans to turn from this

anthropocentric conception of life to an ecocentric position which favours the preservation of the community of all living species.

While agreeing with the notions of anthropocentrism expressed by these scholars, Lynn White analyses this concept from a different angle. As she explains in “The Historical Roots of Our Ecologic Crisis” (1996), “what people do about their ecology depends on what they think about themselves in relation to things around them. Human ecology is deeply conditioned by beliefs about our nature and destiny –that is, by religion” (9). The author argues that Judeo-Christianity is the major source of anthropocentrism and androcentrism, and that technology and science are tightly connected to that religious ideology, all of them posing a domineering attitude of mankind towards the rest of the natural world. The Judeo-Christian story of creation upholds that God created man in his own image, not as a mere part of nature, and gave him the power to name the animals, thus setting dominance over them. All the non-human elements were put on the Earth to serve man, to be exploited by him to satisfy his needs. White asserts that this form of anthropocentrism is especially strong in Western societies, precisely where technological and scientific growth has been greater. As she states, “our daily habits of action ... are dominated by an implicit faith in perpetual progress” which is rooted in Judeo-Christian beliefs (9). This faith in progress has fostered the advances in science and technology in the capitalist West. White considers that the only way to return to an ecological equilibrium, where man could be just another item in nature, would be to change our religious dogma. She gives the example of Saint Francis of Assisi, who tried to inculcate a humbler view of human beings in his followers, deposing “man from his monarchy over creation and set[ting] up a democracy of all God’s creatures” (13).

John Tallmadge and Christopher Manes, in their essays “Toward a Natural History of Reading” (2003) and “Nature and Silence” (1996), respectively, adhere to the ideas expressed by Lynn White claiming that nature has been silenced by man. Agreeing with White’s view of

Judeo-Christianity, Tallmadge considers that humans do not listen to other beings in nature because they do not think of them as “ethical equals”, but only as minor objects to be plundered and utilized for our own benefit (283). Furthermore, Manes insists that culture and literacy have instilled in humankind the belief that only our race is capable of communicating. He believes that, as evolutionary theory has proved, there is no evidence that humans are superior to any other life form; in fact, the extinction of some natural species would be disastrous to the world, while the disappearance of the *homo sapiens* would pass unnoticed. Manes proposes a way out of the environmental crisis by building a new language of ecological humility, free from the discourse of reason, which would allow irrational voices from the natural world to be heard. He thinks it is essential to build a new ethics, based on ecocentric views, in which man should return to the status of *homo sapiens*, as merely one species among an immense number of others. Contributing to this idea, in his work *Ecocritical Explorations in Literary and Cultural Studies* (2009), Patrick Murphy develops the concept of “anotherness”, as opposed to “otherness”, which refers to the interdependence and connectedness of all forms of life, human beings included, as brothers and sisters, on equal footing (35).

Anthropocentrism and the subsequent belief that man is superior to nature lead to the illusion that we can master it by means of technology. In his essay “From Transcendence to Obsolescence: A Route Map” (1996), Harold Fromm sustains that technology has satisfied human basic needs and improved life-quality, creating the idea of self-sufficiency and man’s detachment from nature. But human beings have forgotten that all elements in nature are interrelated, that human roots are in nature, that they need to evaluate the effects of technological developments upon the environment since they depend on it for survival. Evernden, in “Beyond Ecology: Self, Place, and the Pathetic Fallacy” (1996), affirms that changes in some components of the ecosystem affect others because all of them are

intertwined; every part of nature needs of the other parts to survive and evolve: “Ecology ... shows us that we can’t do as we wish without paying a price” (93), as he asserts. Some critics, Randall Roorda, in “KB in Green” (2003), for instance, claim that we have reached a position where the negative outcomes produced by technology can only be mitigated with more technology, in an endless chain of environmental destruction.

In his essay “Four Changes” (1995), Gary Snyder lays out certain transformations that need to be followed to fight back the harmful consequences of technological and scientific abuse, as well as some other anthropocentric practices. He thinks it is essential to reduce the population number, to eliminate political divisions or boundaries, to promote a sensitive use of the land, to establish effective legislation over the use of chemicals that pollute the earth, to recycle in order to reduce consumerism, among other measures. Snyder asserts that, “[i]f man is to remain on earth he must transform the five-millennia-long urbanizing civilization tradition into a new ecologically-sensitive harmony-oriented wild-minded scientific-spiritual culture” (147).

Considering the assumptions discussed above, it becomes essential to dig into the nature of the human being to discover, not only the flaws that have led it to damage the ecosystem, but also the strengths that could help to restore balance. In *Practical Ecocriticism. Literature, Biology and the Environment* (2003), Glenn Love claims that “we have to keep finding out what it means to be human” since our biological needs are the same as those of other animals (6). By means of technology, we have changed our living conditions, though we could have adapted to the environment and evolved naturally as any other species have (Roorda 179). Hence, the aim of any ecocritical research should be, in fact, not a study of nature, but a study of the human being and the part of its nature that has led to the ecological crisis, as Birkerts affirms in “Only God Can Make a Tree” (1996). Undoubtedly, this part of human nature needs to be transformed so as to heal the ecosystem.

The concepts developed by the critics mentioned before are relevant to the analysis I intend to carry out of the two novels by Margaret Atwood. It is my contention that both *Oryx and Crake* (2003) and *The Year of the Flood* (2009) suggest that a change in inherently-human practices seems to be the only way in which environmental balance can be restored. Atwood's works reveal that human footprints in the natural world have to be erased to restore man's harmonious interrelation with the environment, and this goes hand in hand with the standpoints presented by the scholars cited previously.

## **ANTHROPOCENTRISM AND ECOCENTRISM IN *ORYX AND CRAKE***

*Oryx and Crake* foretells a gloomy future for humanity as it recounts the deeds that have contributed to this state of affairs. The novel outlines the relationship between Crake and Jimmy, two friends with radically different personalities. Crake is a scientist, weird but very smart. He considers that mankind is not only devastating the ecosystem, but also on the verge of its own destruction. For that reason, he spreads a pandemic which almost exterminates the human race. At the same time, he creates the Crakers, a new genetically-improved race that would replace humans in the post-apocalyptic world. Jimmy, on the other hand, believes in culture and art more than in science; so, he relies on the power of words to make his way in life. He is one of the lonely survivors from the plague and responsible for taking care of the Crakers, these new creatures who are just thrown into the chaotic realm engendered by the human hand.

*Oryx and Crake* seems to imply that a modification of some human practices is absolutely necessary in order to reverse the ecological destruction of the planet. Many critics have warned about the consequences of essentially-human doings upon the ecosystem. Clearly, the actual ecological unbalance is reaching a point where important decisions have to be made for the living world to survive. In *Oryx and Crake*, the bleak situation of the environment is well depicted from the very beginning. Jimmy affirms that, when he was still a kid, “the coastal aquifers turned salty and the northern permafrost melted and the vast tundra bubbled with methane, and the drought in the midcontinental plains regions went on and on, and the Asian steppes turned to sand dunes, and meat became harder to come by” (29). Without any doubt, this state of the world is mainly man’s own fault, as Jimmy gathers when he notices that these episodes happen at the same time new scientific developments are taking place in many corporations.

Similarly, Crake is concerned about man's behaviour that is resulting in the degradation of the biosphere. He explains to Jimmy, during one of their talks before the plague, that the "[d]emand for resources has exceeded supply for decades in marginal geopolitical areas, hence the famines and droughts; but soon, demand is going to exceed supply *for everyone*" (356). He claims that "you can't couple a minimum access to food with an expanding population indefinitely. *Homo sapiens* doesn't seem able to cut himself off at the supply end" (145). His opinions are consistent with the ones expressed by some ecocritics concerning the necessity of changing humankind's anthropocentric habits towards the ecosystem and turning to more ecocentric attitudes. His determination to eliminate mankind is grounded on his belief that man's behaviour is bringing the world to a collapse, as critics are constantly arguing. The humans' standpoint that arrogantly sets them on a higher level with respect to nature has led them to manipulate natural elements at their pleasure and for their own egotistical ends. As some artists express in the novel,

Human society ...was sort of a monster, its main by-products being corpses and rubble. It never learned, it made the same cretinous mistakes over and over, trading short-term gain for long-term pain. It was like a giant slug eating its way relentlessly through all the other bioforms on the planet, grinding up life on earth and shitting it out the backside in the form of pieces of manufactured and soon-to-be-obsolete plastic junk. (293)

Thomas Berry, among other scholars, believes that it is anthropocentrism which has provoked all these ecological disasters because humankind is constantly searching for self-profit and comfort with no regard for the health of the biosphere. In accordance with Fromm's and Roorda's arguments, *Oryx and Crake* presents the abuses of technological and scientific developments as derived from anthropocentric beliefs. In this novel, scientists that assume an anthropocentric view splice animals and plants in order to create new life forms for man's

benefit, for instance. Through genetic engineering, pigeons are conceived as hosts to human tissue that could be later transplanted to human bodies without rejection or infections. In this way, the human life span could be expanded. As experimentation continues, however, those transgenic creatures develop certain human features which turn out to be rather dangerous. It can be seen that the results from this practice were not always the expected ones, therefore, the necessity to resort to new technology to counteract them. Another experiment carried out with the underlying conception that man is superior to nature is the rakunk, a mixture of racoon and skunk, with a friendly character. Bioengineers experiment with those animals as a hobby, because it makes them “feel like God” (59), they say. Again, acting as if they could master nature, scientists create the bobkittens and the wolvogs, animal splices that are supposed to halt the spread of undesired species, but which, in turn, get out of control.

In the same way the animal world is disrupted, human life itself is manipulated by science. The health laboratories create new diseases so as to take advantage of people’s illnesses. “They put the hostile bioforms into their vitamin pills... Naturally, they develop the antidotes at the same time as they’re customizing the bugs, but they hold those in reserve, they practise the economics of scarcity, so they’re guaranteed high profits” (256), Crake asserts. The idea is to provoke long-lasting illnesses that would assure large incomes for the laboratories. Evidently, human greed is another feature of anthropocentrism. The craving for wealth is a typically-human attitude that cannot be found in other living species and which leads, in this case, to the point of harming individuals of their own nature for self-advantage. These scientists’ attitudes reveal a mode of thinking and acting based on a view which situates mankind at a higher level with respect to the natural world.

However, there are some characters, such as Jimmy, that are aware of the damage that is being caused on the environment. Even though he is not a scientist, he is uneasy about the outcomes of the transgenic mutations bioengineers are carrying out. Sensing that abuses in

technology and science would have some awful consequences, Jimmy thinks that “some line has been crossed, some boundary transgressed” (250). Yet, he does not appear to be interested in taking any kind of action to change this situation since he feels comfortable with consumerism and the technological advances that seem to improve his lifestyle. Other characters, Jimmy’s and Crake’s mothers, for instance, do try to fight against the secret developments of the biolabs, for they consider they are going too far away concerning environmental destruction. As a consequence, they have to endure persecution and death. Moreover, the underground organization called MaddAddam is using technology against technology to demolish new developments that may be ecologically harmful. As Crake puts it, “they’re after the machinery. They’re after the whole system, they want to shut it down” (262). He feels curious about their activities. In spite of being a scientist, Crake also observes that the way mankind is managing the world is provoking undesirable effects in every sphere.

In Atwood’s novel, most ecocentric views are revealed through the Crakers’ attitudes. Crake considers that human beings are not going to change, that “the tide of human desire, the desire for more and better, would overwhelm them. It would take control and drive events, as it had ... throughout history” (357). Therefore, he aims at and succeeds in eliminating most of the human race as we know it and replacing it with a new environmentally-friendly one. Though his plan is extremely radical, some of the deep transformations he makes when he creates the Crakers are worth taking into consideration due to the fact that they could be perfectly applied to present human attitudes without the need of vanishing humankind altogether. As Capra, Tallmadge and Manes propose, the solution to the inescapable catastrophe the environment is verging on is to construct a new ethics that would turn man into its former status of *homo sapiens*. In “Four Changes” (1995), when stating the transformations humanity is due to undergo to achieve this goal, Gary Snyder affirms that human beings “must change the very foundations of ... [their] society and ... [their] minds”

(147). In the case of the Crakers, their creator sustains that “hierarchies could not exist among them, because they lacked the neural complexes that would have created it” (367). Crake changes, in this way, the bases of the human mind in accordance with ecocentric principles so that these new creatures could act as one among many other living things of the ecosystem.

Snyder and Berry express that humankind’s own viability in the world is tied to the imperative of stopping the destruction of species, as well as the contamination of the air, water and soil, caused by the industrial society and consumerism. In Atwood’s work, Crake agrees with this idea. He protests against Happicuppa coffee production claiming that “they’re nuking the cloud forests to plant this stuff” (218). He believes that corporations are wrecking the biosphere. Consequently, in his vision of a new world, the post-human creatures survive as part of the natural web, not as a superior species that plunders the environment. The Crakers do not exhaust natural resources since they utilize the sun and fire as sources of energy. They are vegetarians. “They eat nothing but leaves and grass and roots and a berry or two; thus their foods ... [are] plentiful and always available” (367), Crake affirms. They do not kill animals to survive, so they preserve those species. Besides, they redigest their caecotrophs, as a way of recycling enriched food material consisting mainly of herbs and plants. If Crake believed humankind could effectively achieve its own transformation, he would have proposed a more viable solution, without getting to these extremes. Nevertheless, the prospect of eating fewer animal products, of recycling waste and using alternative sources of energy that would not deteriorate the ecosystem, as the Crakers do, is worth considering as a mode of reconstructing it.

Another anthropocentric practice that appears to damage the environment in *Oryx and Crake* is sex habits that derive into high reproduction rates. Crake thinks human beings are unable to exert control over their sexual drives and over the feelings involved in sex, something which is provoking a problematic increase in population numbers. As he puts it,

man is “one of the few species that doesn’t limit reproduction in the face of dwindling resources” (145). He gives the example of birds to explain that faulty feature of the human race; “in a lean season they cut down on the eggs, or they won’t mate at all. They put their energy into staying alive themselves until times get better. But human beings hope they can stick their souls into someone else ... and live on forever” (145-6). This unwillingness to limit reproduction results in overpopulation, which, Crake affirms, is “leading ... to environmental degradation and poor nutrition” (354). For that reason, he considers that the only alternative to stop the struggle for resources and the consequent harm being caused to the ecosystem is to change the human reproductive behaviour. Consequently, Crake agrees with the development of the BlyssPlus pill. This pill “would protect the user against all known sexually transmitted diseases”, would increase pleasure and satisfaction and would “prolong youth” (355). But most importantly, it would have the extra function of acting as a “sure-fire one-time-does-it-all birth-control pill, for male and female alike, thus automatically lowering the population level” (355). In this way, a hidden method of contraception or sterilization could be introduced into the population. Crake’s most ambitious personal project, however, is quite different. He conceives a new human who could mate following biological needs, only when females were in fertile periods, at regular intervals. What lies at the heart of Crake’s perspective, in fact, is the imperative need for human beings to change their minds with respect to sexual practices, transforming them into more conscientious acts and giving due importance to contraceptive measures to lower the birth rate. Crake thinks that, if mankind were able to take the example of other species, it could behave in a more ecocentric way concerning reproduction, so as to reestablish the ecological balance.

There is a prevalent tendency in medicine nowadays towards expanding life expectancy, another intrinsically-human attitude. Opposing this trend, in Atwood’s novel, the Crakers have a shorter lifetime. Crake explains that “they’re programmed to drop dead at age

thirty –suddenly, without getting sick” (364). Obviously, they do not resort to chemical medicines or doctors. They heal themselves by means of purring, an ultrasound mechanism installed in them by Crake, who had taken that feature from the cat family. Crake’s objective is to get rid of highly-technological therapies that extend the life span to undesirable extents for the post-apocalyptic species to live in total equilibrium with the rest of the ecosystem.

Closely related to White’s opinion that religion should uphold a humbler view of man, Atwood’s work reflects a conception of religion that differs from Christianity as an anthropocentric dogma. In *Oryx and Crake*, the concept of worship is not tied to the idea of man as a master of the universe, as it is generally accepted in the Christian doctrine. Instead, it can be seen that the Crakers embrace bio-centered principles since they maintain an equal position with respect to other species in the universe. Crake has the intention of erasing the idea of God from the human mind because he is convinced that any kind of deity or creed would be the cause of inequality and war in the human world. Nonetheless, after a while, the Crakers develop certain notions of a superior being. “They’re conversing with the invisible, they’ve developed reverence”, Jimmy asserts (192). This does not imply, however, that their attitudes are becoming anthropocentric, but simply, that faith is essential to life. So, though the post-human creatures have invented some kind of religion, they do not contemplate the idea of their being on a higher step with respect to nature.

All in all, it can be said that, in *Oryx and Crake*, a change of man’s attitudes is presented as essential to heal the natural world and to prevent an ecological disaster. This transformation implies a shift from a human-centered mode of thinking to an ecocentric view of man in the world, as it is laid down by Capra and other scholars.

## ANTHROPOCENTRISM AND ECOCENTRISM IN *THE YEAR OF THE FLOOD*

Similar to *Oryx and Crake*, *The Year of the Flood* narrates the events that take place before and after the plague, but from the God's Gardeners' point of view. This religious group predicts the coming of the "waterless flood" that would eliminate most of the planet and only those who live in harmony with nature would survive. The "flood" is really the pandemic that affects the earth to a great extent in *Oryx and Crake*. The Gardeners' prophecy comes true as most of the people who stay alive after this episode follow this cult. Toby, Ren, Adam One, Zeb, among other characters, have tried to follow the rules set up by the God's Gardeners so as to live in an eco-friendly way and to subsist after the plague. Indeed, most of the Gardener teachings seem to have been helpful for them to do so.

Once more, as in Atwood's previous novel, in *The Year of the Flood*, the world is described as a chaos derived from inadequate human behaviour towards the ecosystem. The novel begins with a Gardener hymn that portrays the earth precisely as a garden that was ruined by man:

Who is it tends the Garden,  
The Garden oh so green?  
'Twas once the finest Garden  
That ever has been seen.  
And in it God's dear Creatures  
Did swim and fly and play;  
But then came greedy Spoilers,  
And killed them all away.  
And all the Trees that flourished  
And gave us wholesome fruit,  
By waves of sand are buried,

Both leaf and branch and root.  
And all the shining Water  
Is turned to slime and mire,  
And all the feathered Birds so bright  
Have ceased their joyful choir. (Atwood xi)

Without any doubt, the spoilers the hymn refers to are human beings. They have put species in danger of extinction or merely wiped them out. In this novel, many endangered species are killed to make clothes, bags, costumes or to prepare meals at gourmet restaurants. Many of these animals, such as the “inaccessible rail”, a bird Toby chooses as her codename for Maddaddam, have disappeared just in the last ten years. Due to the misuse of natural resources and the recent technological and scientific developments, the climate is changing and the air, the water and the soil are degrading. Adam One gives several examples of these alterations: “the southern shores of the Mediterranean –once fruitful farmland, now a desert” (90) and

the Great Dead Zone in the Gulf of Mexico; and the Great Dead Zone in Lake Erie; and the Great Dead Zone in the Black Sea; and the desolate Grand Banks of Newfoundland, where the Cod once abounded; and the Great Barrier Reef, now dying and bleaching white and breaking apart. (196-7)

The air is so contaminated that everybody has to wear nose cones to protect themselves. Toby realizes the situation of the world is quickly getting worse. She can feel the oppression of an end coming soon and she thinks, “we’re using up the Earth. It’s almost gone” (239).

In accordance with the opinions of many thinkers, in *The Year of the Flood*, anthropocentrism is presented as the root of ecological devastation. Human-centered attitudes have arisen out of a mistaken perception of the natural world in terms of utility to mankind. In this way, nature is believed to be subservient to human beings and so it may be exhausted and

wrecked at their will. Following the premise introduced in *Oryx and Crake*, in *The Year of the Flood*, it is also implied that technology and science play an important part in the debasement of nature. The fusion of scientific and technological progress has fostered genetic experimentation with animals, plants and even human beings. For instance, bioengineers in the Compounds transform sheep so that they could grow hair to be then transplanted to human beings. They also create the liobam, a splice of lion and sheep, with the futile intention of building up friendship between these two species. Moreover, micro-mechanical systems are inserted by the CorpSeCorps into bees at larval stage to spy on the population.

Apart from experimenting with animals, biolaboratories also have the capacity to alter human life in this novel, the same as in *Oryx and Crake*. The HealthWyzer labs are introducing illnesses into vitamin supplement pills, providing a cure for them afterwards and getting high profits out of this procedure. When Toby was a teenager, her mother developed a strange disease after taking those pills. She finally died after her husband had spent almost all their money in doctors and drugs. Talking about her death, some years later, Pilar assures Toby, “those Corporation pills are the food of the dead, my dear” (105). Added to these practices, many therapies are developed to enhance beauty and youth, such as changing iris pigment and skin colour, hair transplant or treatments for skin renewal, some of which are offered in AnooYoo Spa, where Toby worked before the pandemic. All those proceedings show that human beings believe they are the owners of life on earth and have the power to manipulate nature with no limits.

The wrecked world situation generated by the human hand is clearly perceived by some of the characters in Atwood’s work, although they confront it in different ways. The main characters in this novel belong or have formed part of the God’s Gardeners. Toby, Pilar and Adam One are convinced that mankind is destroying the planet and that its annihilation is about to come. They intend to live in harmony with nature, adjusting their lives to contribute

to the welfare of the bionetwork. Besides, they condemn those technological and scientific advancements that attack the environment. Zeb also agrees with the ecocentric principles the Gardeners hold, but he follows a different path in order to fight the corporations which are responsible for the Earth's deterioration. He founds the secret organization called MaddAddam, briefly mentioned in *Oryx and Crake*, and to which Crake decides to make his own contribution. This group effectively utilizes science and technology with a quite different purpose, to destroy those products that are causing the ruin of the ecosystem. Ren, on the other hand, lived with the Gardeners as a child, but then, her mother took her to the Compounds and, although she keeps some of the teachings from the Gardeners, she departs from many of the common practices she was accustomed to follow when she dwelt with them.

Contrariwise, some other characters disrespect the ecosystem and do not even contemplate the idea of restoring its balance. Blanco is the best illustration of this kind of attitude. He owns a food chain called SecretBurgers. It is popularly rumoured that any kind of animals are used to make these burgers and that sometimes human pieces are found inside them, but "who could say no to a business with so few supply-side costs?" (34), as the narrator puts it. What is worse, Blanco is contemptuous of human life, especially women's. Toby worked at SecretBurgers for some time and was constantly harassed by him until she was rescued by the God's Gardeners. Because of this, Blanco eagerly tries to find the girl so as to kill her. Blanco's greed and haughtiness are characteristic of anthropocentric and androcentric viewpoints for he considers other living creatures are worthless if compared with his own.

According to Fritjof Capra, the only way to repair the damage caused to the ecosystem is to modify man's anthropocentric outlook on the natural world and turn to a more ecocentric stance. He sustains that a change in the standards of behaviour is fundamental to reestablish the lost ecological equilibrium. Capra as well as Manes and Murphy consider that, in order to

heal nature, man has to go back to its previous condition of *homo sapiens*, becoming just another piece in the network of life and tuning in to hear the voices of nature. In *The Year of the Flood*, this idea is central to the God's Gardeners' way of living, for they regard other elements in the biosphere as equal to human beings, treat them with due consideration and communicate with them.

Adam One is convinced that the God's Gardeners' actions are supremely important to redress the earth's balance since he asserts that "if all were to follow ... [their] example, what a change would be wrought on ... [the] Planet!" (11). The main purpose of the God's Gardeners is to live sustainably, in communion with nature, respecting every one of its creatures and rejecting the use of technology that could damage the ecosystem. For that reason, their practices tend to reconstruct harmony in the natural world. Toby, for example, feels remorseful when smashing some iridescent green beetles while collecting spinach, so she "makes a thumbprint grave for them and says the words for the freeing of the soul and the asking of pardon" (16). They try to avoid "the original sin of desiring too much knowledge or possibly too much power" (102), which constitutes the essence of anthropocentric attitudes. Adam One expresses it unmistakably when he affirms:

the Fall of Man was multidimensional. The ancestral primates fell out of the trees; then they fell from vegetarianism into meat-eating. Then they fell from instinct into reason, and thus into technology; from simple signals into complex grammar, and thus into humanity; from firelessness into fire, and thence into weaponry; and from seasonal mating into an incessant sexual twitching. Then they fell from a joyous life in the moment into the anxious contemplation of the vanished past and the distant future. (188)

Despite the fact that they treat every living thing as their equal, in *The Year of the Flood*, the Gardeners do organize their community according to hierarchies, as opposed to Crake's views in *Oryx and Crake*. Nevertheless, these hierarchies are not based on power, but on knowledge and wisdom. "Adam One insisted that all Gardeners were equal on the spiritual level, but the same did not hold for the material one: the Adams and the Eves ranked higher, though their numbers indicated their areas of expertise rather than their order of importance" (45), Toby explains.

The Gardeners' simple lifestyle conforms to the views expressed by Berry and Snyder when they claim that the preservation of species and natural resources, together with the reduction of garbage production are essential to the restoration of the natural equilibrium. Adam One insists that they "must be ready for the time when those who have broken trust with the Animals ... will be swept away by the Waterless Flood" (91). Compliant with these ideas, the Gardeners are strict vegetarians; consequently, they protect animal life. They grow their own organic garden and take care to employ only those vegetables that are in season, leaving the ones which are scarce to grow and multiply. They pay special attention to the extraction of honey since they consider it to be the most complete nutrient, "the food of immortality" (96), assures Toby, and an excellent medicine as well. Not surprisingly, they have a great respect for bees because they produce this invaluable substance. The Gardeners are accustomed to speaking to the bees so as to tell them the news of the Garden and to persuade them to give them their product. Another common practice among the Gardeners is recycling. They collect things that are thrown away by other people and reuse them. In doing so, they contribute to reduce rubbish proliferation.

Snyder pleads for a population reduction that could prevent a run out of natural resources and reduce pollution as well. In *The Year of the Flood*, the Gardeners are evidently against overpopulation and its negative outcomes. This can be perceived in one of Adam

One's speeches when he stresses that "God's commandment to 'replenish the Earth' did not mean we should fill it to overflowing with ourselves, thus wiping out everything else" (53). It can be inferred, then, that a restrained sexual behaviour is one of the sect's implicit principles. Though they do not overtly discuss this topic in the novel, some of the characters' comments convey this idea, for instance, when Ren makes clear that sex is only for those who exchange green leaves, which is a form of marriage for the Gardeners. It seems to be their belief that maintaining more moderate sexual habits would reduce reproduction and the growth of population.

Like in *Oryx and Crake*, in *The Year of the Flood*, the idea of expanding the human lifespan by resorting to novel medical treatments is rejected. The Gardeners conceive death as donating oneself "to the matrix of Life" (179), as a natural step in our existence that contributes to the nourishment of the whole web of nature. Therefore, they do not believe in newly-developed therapies that extend life and only utilize natural medicine to cure illnesses. In the case of Toby, she studied Holistic Healing when she was at college, so she is skilled at making herbal lotions and creams for skin care. Pilar also teaches her how to use honey to cure open wounds and which mushrooms can be utilized to treat certain health problems. Together, they collect the juice from the Poppy plants to make potions, sometimes mixed with Willow, Valerian or many other herbs. Pilar even keeps a good supply of maggots in case injuries need to be cured because they eat the decaying flesh and kill the bacteria. On one occasion, when Zeb was hurt by pleeblanders, Pilar "sponged Zeb's cuts with vinegar, then rubbed on honey" (108). Afterwards, Katuro applied maggots to the cuts. Another natural treatment the members of this community resort to is the spider's web to stop blood flow from wounds. All these elements are collected and prepared with great care and respect since the Gardeners are convinced that nature provides them with all they need to live, including

medicine. If they cannot be cured by natural methods, they offer their deaths as a gift to the earth, to become part of the network of life.

Concurring with Lynn White's proposal for a new kind of religion, more ecocentric in its precepts, the God's Gardeners' doctrine is based on ideologies that conceive man as one piece of the ecosystem, in total interrelation with the others, and thus on the same level of importance as any other element. While based on the Christian dogma, this cult reinterprets the teachings of the Bible to construct a more biocentric scenario of the man-nature relationship. The Gardeners accept scientific postulates such as the Big Bang Theory and the Theory of Evolution, for they think these agree with their own conception of creation. As a matter of fact, they affirm that man has evolved from primates, confirming that humankind does not have exceptional features that would place it on a superior status. This religious group considers that God's mandate for man to name the animals did not mean to master them, but only to greet them, to embrace them as companions. Adam One claims that human beings have disobeyed God's commandment to "live the Animal life in all simplicity" (52). Indeed, he wonders, "why do we think that everything on Earth belongs to us, while in reality we belong to Everything?" (52-3). In her argument in favour of a humbler conception of mankind, Lynn White mentions Saint Francis of Assisi as an example of this sort of approach. The Gardeners, precisely, pray to this Saint who communicated with the fish, since they consider him as a model of respect towards the animals. Apart from him, they are devoted to many other saints who have fought to defend the life of animals and plants, acting along the lines of eco-friendly principles.

Having analyzed the characters' behaviour and the outcomes of their decisions in life, it becomes clear that, in *The Year of the Flood*, anthropocentric habits have led to the destruction of the planet, while ecocentric attitudes have helped to reconstruct the ecosystem saving the human race as well. In this novel, changes towards more eco-friendly ways of

acting and living in the world are suggested as a solution to the urgent environmental problems which are affecting the earth. Like in *Oryx and Crake*, the transformations recommended in *The Year of the Flood* coincide with many ecocritics' and scholars' proposals.

## CONCLUSION

Ecocritical theories have acquired a huge relevance during the last decades as a result of the destruction our planet has been undergoing. Margaret Atwood's *Oryx and Crake* and *The Year of the Flood* point out that present anthropocentric ideologies should be transformed in accordance with more ecocentric principles, where an ethics of respect towards the natural world should be built. It becomes evident in both novels that only by changing some attitudes which are typical of mankind as a species and cultivating ecocentric ideas instead, will we reduce harm to the ecosystem. In this way, nature's and mankind's annihilation may be prevented.

In Atwood's works, similar proposals are presented concerning changes in the use of technology and science. *Oryx and Crake* and *The Year of the Flood* expose those human attitudes which have spoilt the natural balance. Anthropocentric thinking has encouraged the abuse of technological and scientific methods so as to improve the human lifestyle without taking into account the aftermath of these decisions. Both novels depict the evils produced by the abuse of technological and scientific developments in different fields, especially in bioengineering, and they advocate their rejection, or, at least, a more conscientious use of them in situations in which the impact to the environment would be minimal. As far as *Oryx and Crake* is concerned, Crake does not believe mankind is able to use science and technology in a rational way. Therefore, he uses his knowledge to eliminate the human race from the planet and to create a new one which does not need to resort to techno-scientific developments to survive. With respect to *The Year of the Flood*, the Gardeners do not utilize technology or science unless it is indispensable, so as to reduce damage to the ecosystem.

Regarding the excessive and rapid increase in the human population, the changes suggested in *Oryx and Crake* and *The Year of the Flood* are alike. These fictional works show

the way in which overpopulation has affected the ecosystem, again, as a consequence of anthropocentric views. Analyzing these novels, it becomes clear that a change in sexual habits is needed to reconstruct the equilibrium in nature. In the case of *Oryx and Crake*, the use of contraception, or even sterilization, seems to be a good birth-control method for humans. Moreover, when Crake devises the new post-human creatures, he makes them sexually active only at regular periods, which implicitly shows that a more moderate reproductive behaviour could prevent an uncontrolled population growth. Similarly, in *The Year of the Flood*, the God's Gardeners sex habits are restrained to fulfill the same objective. Added to this, both writings coincide in relation to the transformations needed to stop the destruction of species and natural resources that result from the extension of the human lifespan. The use of new medical treatments to make human beings live to older age is described as having contributed to an over-inhabited earth and to the exhaustion of natural supplies. The Crakers in *Oryx and Crake* as well as the God's Gardeners in *The Year of the Flood* share a simple lifestyle, resorting to nature for healing, as well as contemplating aging and death as normal stages in the course of life. Moreover, in both novels, the characters try to use resources rationally, preserving species instead of indiscriminately killing animals or plants, and they recycle rubbish so as to restore the balance in the ecosystem.

With respect to hierarchical thinking, different perspectives are introduced in Atwood's works. While *Oryx and Crake* favours the elimination of hierarchies in any aspect of life, *The Year of the Flood* promotes hierarchical organization, but only based upon knowledge and wisdom, not on power. It can be inferred, then, that human beings could be able to erase, willingly, the concepts of superiority and inferiority, of being privileged or deprived, constructing a world where all the living creatures stand on the same footing. Hierarchies may be worthy only if they do not contribute to unjustness and to the annihilation of the ones on the lower steps of the system.

As regards religion, *Oryx and Crake* and *The Year of the Flood* also differ on the changes suggested. The first novel presents the eradication of every sort of religious thoughts and practices as a way of building a fairer world, where all beings are equal and where a better man-nature interaction can be achieved. However, it is implied afterwards that this conception cannot be put into practice since a new kind of worship seems to be evolving among the Crakers, while maintaining a respectful relationship with the ecosystem. In the second novel, rather than eliminating religion, the sect the God's Gardeners readapt the principles of Christianity to create a more eco-oriented doctrine. For this reason, I consider that what is implied in these novels is not the need to do away with religious ideologies, but to change our man-centered Christian beliefs into more bio-centered ones.

To conclude, it can be said that, in *Oryx and Crake* and *The Year of the Flood*, Atwood does not only depict the decaying state of the planet, something which can be witnessed daily, but also puts forward some interesting transformations mankind should consider so as to heal the biosphere. The suggestions the writer puts forward are not impossible to carry out. They simply entail conscious and permanent efforts to contribute to the improvement of the world conditions. Atwood acknowledges the difficulty of this task, while revealing a ray of hope as regards the future of ecology, when she reflects,

[the world] can't be sustained. The world is this big, and we can't make it any bigger. You can't put any more unrenewable resources on to it. There's a lot of hi-tech thinking going on. It's that trend versus Famine, Flood, and Drought. ... Well ... Let's just say it's... a super-challenge. (McCrum, n. pag.)

Definitely, if accomplished, the changes implied in *Oryx and Crake* and *The Year of the Flood* are likely to help save the Earth.

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