



folk/ed. Derg, 2020; 26(1): 115-126
DOI: 10.22559/folklor.1137

Climate Change: An Apocalypse for Urban Space? An Ecocritical Reading of “Venice Drowned” and “The Tamarisk Hunter”

İklim Değişikliği: Kentsel Mekân İçin Bir Kıyamet mi?
“Venedik Boğuldu”nun Ekolojik Eleştirel Okuması ve
“The Tamarisk Hunter”

Özlem Akyol*

It's not climate change-It's everything change.

Margaret Atwood

Abstract

As encapsulated by eco-conscious author Margaret Atwood, climate change has an unprecedented effect on human life. Throughout history human beings have adapted to numerous climatic changes by complying with the available sources of food, housing, clothing, water or warmth. Today, however, climate change creates more devastating and instant consequences that populations and the ecosystem cannot cope with. The situation seems to have become too compelling to ignore so many authors feel an urge to warn people by transforming graphs and scientific data into emotion and experience in their narratives. At this point, “climate fiction” commonly known as “cli-fi” emerges as a new category engaging global and local effects of the global warming with literature. Despite the fact that cli-fi was not officially coined until the late 2000’s, many authors have been writing about climate change for years now. In this sense, “Venice Drowned” (1981) and “The Tamarisk Hunter” which was published 25 years later are the best examples to illustrate how deep-rooted and long-standing environmental issue climate change

Geliş tarihi (Received): 22 Nisan 2019 - Kabul tarihi (Accepted): 05 Ekim 2019

* Dr. Öğr. Gör. Pamukkale Üniversitesi, Yabancı Diller Yüksekokulu. ozlemakyol12@gmail.com. ORCID: 0000-0002-0641-8710.

is. Kim Stanley Robinson and Paolo Bacigalupi have produced a great deal of works relating to not only the physical destruction of climate change to the Earth but also its long-term effects on our social and economic structures. Accordingly, the stories both set in urban space skillfully exemplify the social, political and economic effects of climate change. So far, a great amount of cli-fi texts have been produced and literary critics have also responded to this trend with an increased quantity of analyses in the context of eco-criticism. In this paper “Venice Drowned” by Kim Stanley Robinson and “The Tamarisk Hunter” by Paolo Bacigalupi will be studied through the theories of ecocriticism in order to demonstrate how cli-fi texts function in providing the reader with an objective perception by elucidating the explicit and belated challenges posed by the problem of climate change.

Keywords: *cli-fi, global warming, climate change, ecocriticism*

Öz

Çevre bilinçli yazar Margaret Atwood’un da özetlediği gibi iklim değişikliğinin insan hayatı üzerinde eşi benzeri görülmemiş bir etkisi vardır. Tarih boyunca, insanoğlu mevcut yiyecek, barınma, su ve ısınma kaynaklarını uyumlu hale getirerek birçok iklim değişikliğine adapte olmuştur. Ancak bugün, iklim değişikliği ekosistemin ve insanların baş edebileceğinden daha hızlı ve daha yıkıcı sonuçlar doğurabilir. Bu tehdit öyle devasa boyutlara ulaşır ki birçok yazar bilimsel verileri ve grafikleri kendi yazınlarında duygu ve yaşanmış olaylara dökmek için bir zorunluluk hissederek. Bu noktada, çoğunlukla “cli-fi” olarak bilinen “iklim yazını” ısınmanın küresel ve yerel etkilerini edebiyatta ön plana çıkararak yeni bir kategori haline dönüşür. 2000’lerin sonuna kadar iklim yazını resmi olarak bir kategori şeklinde kabul edilmese de birçok yazar bu konu hakkında metinler üretmektedir. Bu anlamda, “Venice Drowned” (1981) ve bundan 25 yıl sonra yazılan “The Tamarisk Hunter” iklim değişikliği konusunun ne kadar derin ve uzun süredir var olan bir mesele olduğunu ortaya koymada çok doğru örneklerdir. Kim Stanley Robinson and Paolo Bacigalupi iklim değişikliğinin dünyaya verdiği fiziksel zararın ötesinde meselenin sosyal ve ekonomik uzun vadedeki etkilerini konu alan çok sayıda eser üretmişlerdir. Buna bağlı olarak, ikisi de şehir merkezinde geçen bu hikâyeler iklim değişikliğinin sosyal, politik ve ekonomik etkilerini çok doğru bir şekilde örneklendirir. Şimdiye kadar oldukça fazla iklim yazını metni üretilmiştir ve edebi eleştirmenler bu yoğunluğa ekoeleştirme üzerinden birçok analiz yaparak karşılık vermişlerdir. Bu makalede, Kim Stanley Robinson’un “Venice Drowned” ve Paolo Bacigalupi’nin “The Tamarisk Hunter” adlı hikâyeleri iklim yazını metinlerinin bu ekolojik problemle ilgili açık ya da sonradan ortaya çıkan sorunları ortaya koyarak okuyucuya tarafsız bir bakış açısı kazandırması konusundaki işlevliğini ortaya koyma adına ekoeleştirme bakış açısıyla analiz edilecektir.

Anahtar sözcükler: *iklim yazını, küresel ısınma, iklim değişikliği, ekoeleştirme*

Introduction

All around the world, the majority of people consider global warming is a major threat to their nations. IPCC Fifth Assessment Report confirms that between 1880 and 2012 the global temperature increased by 0.85 °C and since 1979 the rate of warming has approximately doubled. (2013) This is mainly because of the emission of greenhouse gases in the atmosphere which causes a constant rise of temperature on the earth. The warming in global scale puts the earth in the risk of more extreme and intensive weather events such as tropical storms, drought, flooding of which consequences include sea level rise, reduced food production, reduction in plant and animal species and harm to marine ecosystem. This is mainly based on human beings' long adopted consumption and production patterns which have existed for over a hundred years but which are simply no longer sustainable. Experts claim that "It is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century" (IPCC, 2013). This serious threat is mostly related to anthropogenic reasons. These reasons and their catastrophic results are frequently explored in literature. Especially, in the last two decades, climate change has emerged as a dominant subject in literature, accordingly, in critical studies, which paves the way for the emergence of a new literary category called "climate fiction" also coined "cli-fi." Instead of identifying this new literary category as a genre, it will be more accurate to identify the issue of climate change as a topic adopted by many genres such as, science fiction, dystopia, fantasy, thriller, even romance. In other words, "climate change fiction names an important new category of contemporary literature and a remarkable recent literary and publishing phenomenon, although it is not necessarily a genre" (Putra, 2016: 265). This means a large amount of text written in a variety of genres necessarily forms a new literary category.

Most of the works in this category might be considered as a therapeutic space where collective anthropogenic anxieties are displayed, shared and worked through in a way that they have potential for encouraging the reader to contemplate on the issue and accordingly take an action, E. Ann Kaplan states that the Anthropocene has induced a global "pretraumatic stress", a macrocosmic version of the Pretraumatic Stress Syndrome similar with the situation which soldiers experience when they are assigned to a combat. Narratives exploring environmental disaster scenarios, Kaplan argues, help overcome this trauma in such a way that they become "intriguing, if desperate, attempts by humans to make sense of and find ways around the global catastrophes already in process" (2016: 12).

Cli-fi was first coined by a journalist, a former teacher and a devoted environmentalist Dan Bloom, who strongly believes in power of story-telling to change attitudes about climate change. (Sullivan, 2017) According to Bloom, cli-fi is quite comprehensive in a way that it could be science fiction like Kim Stanley Robinson's *Forty Signs of Rain* (2004) or comic fiction like Ashley Shelby's *South Pole Station* (2017) or a satire like Ian McEwan's *Solar* or a dystopia like Margaret Atwood's *The Year of the Flood* (2009). Climate change fiction could be a recent phenomenon but the idea has been around for centuries. In his 1883 novel *Paris in the 20th Century*, Jules Verne illustrated Paris which is hit by a sudden drop in temperature or British author JG Ballard wrote dystopian novels about climate change related disasters. *The Wind From Nowhere* (1961) and in *The Drowned World* (1962) illustrated a

future world in which global warming and human induced climate change caused melting polar ice caps and rising sea levels. In *The Burning World* (1964) Ballard wrote a story about droughts due to disruption in the precipitation cycle triggered by industrial pollution. Despite the fact that such novels had been written an era before the issue of global warming and climate change were introduced by scientists, these narratives having a climatological approach to apocalyptic dystopia could be considered as precursor texts of the burgeoning literary category. However, it was 1977 when Arthur Herzog's *Heat* was identified as the first climate change novel and this is the time when "the history of climate change fiction begins in earnest" (Trexler and Putra, 2011: 187). Since then, there have appeared a large number of climate change novels that have gained substantial critical and public attention. The majority of these may be defined as dystopian as they include an undesirable and negative depiction of future after an apocalyptic event. Recent post-apocalyptic climate change narratives include Margaret Atwood's *Orxy and Crake* (2003) and *The Year of the Flood* (2009) *The Peripheral* (2014) by steampunk writer William Gibson, Kim Stanley Robinson's "Science in the Capital" trilogy (2004, 2005, 2007), Paolo Bacigalupi's *The Windup Girl* (2011).

Recently not only cli-fi texts but critical studies on those have also proliferated. "Climate change now appears as a major strand in the regular meetings of eco-critical scholarly societies, such as the Association for the Study of Literature and Environment (ASLE)" (Putra, 2016: 272). On the one hand, an eco-critical analysis of cli-fi texts suggests that criticism plays an important role in raising awareness about how to cope with, adapt to or mitigate against this environmental problem. On the other hand, there are some critical studies focusing on the representations of the issue on ethical, political, social even psychological concerns. In scrutinizing these arguments, many theorists usually refer to the idea of the Anthropocene. This necessarily shows that human behaviour has been affecting the Earth to such an extent that it not only causes irrevocable environmental damage but it also leads to an existentialist and epistemological crisis for human beings. Therefore, an ecocritical reading of Robinson's "Venice Drowned" and Bacigalupi's "The Tamarisk Hunter" discloses political, social, ethical and psychological representations of the issue as well as it provides warnings to the reader on how serious consequences climate change could have.

"Venice drowned"

Kim Stanley Robinson is an American novelist with specific concern about politics and environment. A survey in *Time* conducted by Oliver Morton reveals that he is one of the "Heroes of Environment" for his ongoing interest in the issues associated with climate change and his successful exploration of such issues in his writing (2008). "Venice Drowned" is one of his short stories which describes a dystopian future with the devastating effects of climate change. The story illustrates Venice, which has been completely flooded due to the unceasing rain storms that "pulled over [the city] like a black wool blanket and dumped water for forty days. And it had never been the same again, not anywhere in the world..." (VD, 9). Also, Venetians' struggle for survival in the shacks built on the top of the houses that were already submerged and their anxieties about the future of their country are narrated through the main character of the story, Carlo. He works as a guide for tourists who come to Venice with the aim of scuba diving to see the historical sites which have been wiped out because of the flood.

In one of these tours, he accompanies two Japanese tourists whose ultimate purpose is to take a precious tile mosaic embedded onto the wall of the submerged church. It is soon revealed that this is not a separate event but it becomes a kind of business which “Italy government permits” (VD, 8). The environmental disaster in Venice causes many changes not only in surroundings of the city but also in political, national and social attitude of Venetians. When it comes to the physical change that is caused by the flood, the city has been completely under water, people have lost their houses and the farming areas have become useless. These apparent changes lead to a paradigm shift in social life in the city and also psychological state of Venetians.

In the beginning of the story, the place where Carlo and his family live is described in detail. This description, in effect, is a micro-representation of the city which has been wiped out by the flood and whose inhabitants have been deprived of cultivating the land and compelled to live in extremely poor conditions:

Carlo re-entered the shack and walked into the bedroom to dress. Between putting on one boot and the next he stopped to smoke a cigarette, the last one in the house. While smoking he stared at his pile of books on the floor, his library as Luisa sardonically called the collection; all books about Venice. They were tattered, dog-eared, mildewed, so warped by the damp that none of them would close properly, and each moldy page was as wavy as the Lagoon on a windy day. They were a miserable sight, and Carlo gave the closest stack a light kick with his cold boot as he returned to the other room. (VD, 2)

This symbolic scene illustrates the flood affects Venetians’ lives in such a great extent that the damage is not only physical but social and psychological as well. The books which are irrevocably damaged and scattered around refer to the people’s lives in Venice. Just like the books’ miserable sight, Venetians’ lives have been also wretched due to the flood that has wiped out their city completely. The idea that the pages warped by the damp can never turn their original form overlaps the fact that Venetians’ lives will never be the same with their state before the flood.

The predicament spreads all around Venice. Burano, another small town near Venice, “was empty. [...] It had been an island town, before 2040; now it had ‘canals’ between every rooftop” (VD, 5). A mile away from Burano there is Torcello “another island ghost town” (VD, 5). These “ghost towns” are the consequence of the magnitude of the storm in 2040. They are completely deserted and also “cruel model of the future. If the water level rose even three meters, Venice would become nothing but a big Burano. Even if the water didn’t rise, more people were leaving Venice every year. One day it would be empty” (VD, 9). As Ursula Heise argues, the Anthropocene has the “capacity to cast the present as a future that has already arrived” (2016: 203). The Anthropocene thus accelerates the effects of environmental disasters and turns the present world into a space where tragically belated effects of human attitude towards environment are unveiled.

After the flood, the city turns into a post-apocalyptic place where people have a few options to make their living. One of these options is taking tourists to tours to see the underwater sights. This business soon turns out historical artefact smuggling which is explicitly ignored by

Venetians as well as Italian government. In this case, Venetians do not only face with the danger of losing their habitats at the same time they are in danger of losing their national identity. Since art and national identity are reciprocally associated with each other, losing your art comes to mean that you are gradually being deprived of your national identity. In the story, two Japanese tourists try to remove the mural of Madonna and take it to their own country. Although Carlo does not want to involve in the business and defines the smugglers as “vultures” (VD, 8) he has to continue since “[they] need that money” (VD, 17) as his wife clearly asserts. This necessarily means that the flood vanishes not only their habitat but also damages their identity and the heritage for the next generations. “Cultural heritage is seen as a major component of quality of life and plays an important role in society and community wellbeing” (Tweed and Sutherland, 2007). The loss or impairment of heritage can affect societies in local and national scale in terms of various aspects. Cultural items enrich the environment by contributing to the spirit of place that directly strengthens a person’s sense of identification with a place. When they are damaged after a natural disaster, locals will be deprived of the inspiration of this cultural heritage which is a socio-psychological need in managing the hardships after the disaster. Moreover, cultural sites promote local occupations related to tourism, construction, arts, and the production of souvenirs. Therefore, a cultural site is a plus value for local and national economy. It is clearly accepted that effects of any disaster on national identity and heritage cannot be labelled only as patriotic or moral. Locals are prone to be affected by socio-psychological and economic factors occurred due to the loss or deterioration of cultural sites.

As a matter of fact, the dystopic vision in Venice contradicts with the promises of scientific and technological progress in the 20th century. As Sheryl Hamilton states, “[t]he constant revision of knowledge, the disagreement among its practitioners, and the evident failures of science over the course of the twentieth century have tended to undermine utopian promises of progress; certain knowledge and rational control over nature have given way to a permanent sense of anxiety, as people contemplate the potential failure of globalised technological, scientific, and economic systems” (2003: 267). This means that the more advanced technology and science we develop the less promising future we get. The main reason for this contradiction is anthropogenic practices specifically leading to climate change all around the world. Climate change is “in itself turning into one of our dominant discourses” (Kluwick, 2014: 504). It has become “the key narrative within which political issues from the local to the global are framed” (Rayner, 2009: xxiii). In this sense, cli-fi narratives provide the imaginative construction of climate change not only ecologically but also politically and ideologically related. Therefore, the issue has recently taken the priority on political and cultural agendas. As in the example of “Venice Drowned”, the flood affects the Venetians not only ecologically but it also causes cultural and ideological changes on human attitude. The attitude of Italian government towards the art smuggling indicates the loss of authority over the citizens whose ultimate aim is to survive. Survival is the main concern for the Venetians who have been living in extreme conditions because of the huge economic collapse caused by the flood. In 2312, Robinson posits that “a catalytic event of sufficient magnitude to initiate a paradigm shift that will fundamentally alter the direction of human civilization, including its economic activities and its environmentally destructive practices, can occur” (2012: 161). The flood, in this sense, is the catalytic event which engenders paradigm shifts in political and economic agendas.

As well as the political and economic implications, Carlo's experience during the smuggling indicates that it is more than a simple criminal event yet, it directly refers to the issues of national identity and cultural heritage. In this sense, Robinson skilfully illustrates in what extent a natural disaster caused by climate change can influence national and religious attitude. Carlo, who works in the smuggling business reluctantly, thinks that this is also an assault to their religion when he talks to himself "What good would a Madonna do in Japan, anyway? They weren't even Christian" (VD, 16). His anxiety is also reflected through the Madonna's face on the mosaic; "She looked as though she could see all of the future, up to this moment and beyond; all of her child's short life, all the terror and calamity after that . . ." (VD, 16). The belated effects of climate change are not temporary or do not only cover some certain places but rather they are collective and permanent as long as anthropogenic perception dominates the world. Climate change and its various effects can be best conveyed through literature as Robert Macfarlane asserts "Where are the novels, the plays, the poems, the songs, the libretti, of this massive contemporary anxiety?" (2005).

Robinson's attempt to put the climate change issue into the readers' agenda has led him to choose near future and a familiar setting in his fiction. In this sense, Frederick Buell states "As a novelist, it's obvious: you know, if something happens in three years, rather than five hundred years, you're better off in trying to figure out a story of how human beings are impacted and you can just frame the story better" (2003: 279). Therefore, the readers might be highly influenced by "Venice Drowned" which demonstrates the climate change issue as "the destruction of the natural world, and widespread human misery [that] were combining in a toxic and combustible mix" (Robinson, 2005: 4). The miserable atmosphere that Robinson has tried to depict in the story is assured by Carlo's memory which strongly evokes the feeling of despair for the future: "Once, he remembered, he had put on his scuba gear and swum down into the church. He had sat down in one of the stone pews in front of the altar, adjusting his weight belts and tank to do so, and had tried to pray through his mouthpiece and the facemask. The silver bubbles of his breath had floated up through the water toward heaven; whether his prayers had gone with them, he had no idea" (VD, 17).

Consequently, "Venice Drowned" explores the climate change issue that also requires political, social and psychological engagement. Carlo and his family have to undergo economic difficulties by losing job opportunities around. He becomes obliged to involve in smuggling business which he thinks as an assault towards his national and religious attitude. This directly influences his psychology in a way that he completely feels desperate for his future. The natural disaster which hit Venice is not influential only in individual basis. Also, the government has to change its implementations and ignore some crimes which used to be defined as major offence before. Therefore, it can be clearly stated that an ecological issue should not be read as an independent concern. Considering that nature and culture are interconnected, the effects of any ecological problem have been already embedded in political, religious, national, economic and psychological agendas. According to ecocritical point of view, "nature is in some ways culturally constructed, and the other on the fact that nature really exists, both the object and, albeit distantly, the origin of our discourse" (Garrard, 2004: 10).

“The tamarisk hunter”

The desperate situation in “Venice Drowned” is similarly illustrated in another cli-fi short story, “The Tamarisk Hunter” by Paolo Bacigalupi, who is known for his devotion to political and environmental issues in the USA. He defines himself as a writer of “extrapolations” which comes to mean the dependency on known and existing science and technology. Such stories abound with quantitative data and familiar settings, which makes the narrative more realistic and influential. Therefore, “The Tamarisk Hunter” is written in such a fashion that it becomes a narrative of questioning and contemplating rather than that of prediction. Accordingly, the story opens with a scientific fact about a tamarisk tree. “A big tamarisk can suck 73.000 gallons river water a year” (TH, 123). It is a water apocalypse story which is about a man called Lolo living in the future world that the government controls nearly all the western United States’ water supply. He barely makes a living by ripping water sucking trees (tamarisk trees) along the banks of the Colorado River and getting water bounty and \$2.88 a day in return. Interestingly enough, he simultaneously plants tamarisk seeds into the river banks in order to resume this business. In this story, anthropogenic water shortage and its subsequent effect, drought is the main concern.

As the world population grows, the renewable water capacity has been exceeded, which results in anthropogenic drought in many parts of the world. This problem leads to many other environmental changes like groundwater depletion, land subsidence, drawing of lakes and wetlands. However, the most crucial effect of drought is scarcity which places millions of people at the risk of dying. According to the report of World Resources Institute, % 54 of India faces with high or extremely high water scarcity (2015). This is a global problem which has a ripple effect causing economic, political and social changes all over the world. For example, long- lasting drought in Australia caused global grain prices increase in 2007 and 2008. This event triggered bread riots and political chaos from Haiti to North Africa (The Guardian, 2015).

In “The Tamarisk Hunter”, not only the local ecological effects of this serious threat are elaborated but also the issue of drought is socially represented in the story. The apparent drought problem in the story indicates a social problem, the class distinction. The upper-class citizens who are referred as Californians in the story are strictly differentiated from lower class citizens like Lolo and his friends. The Californians are free to access to water resources whereas the others have to work in tough conditions to survive. Lolo’s friend Travis underlines the big gap between two classes when he says “Some Californian’s probably filling his swimming pool with last year’s water bounty right now” (TH, 128). As the plot unfolds, the class distinction problem does not remain as a social conflict but turns out an ideological concern. The “guardies”, the name they are referred in the story, function as security guards with the mission of protecting the surroundings from looters after Big Daddy Drought, the specific name they have given to the drought period they have been experiencing. However, the guardies soon transform into a sort of state apparatus with “their Humvee with a 50 calibre on the back, M-16s slung over their shoulders and in full bulletproof gear” (TH, 131). They oppressively control the citizens by restricting their access to water and forcing them abandon their lands and immigrate to the north. This control

mechanism also manipulates people's lives on an individual scale. When Lolo heads home to find that two "national guards" (TH, 132) have been looking for him he thinks that they have found out the crime of illegal tamarisk tree planting. He desperately plans to shoot them since he does not want to "let those bastards take him off to a labour camp for the rest of his life" (TH, 131). However, he suddenly recognises that one of these guards is his childhood friend, Hale Perkins, who reminds him of the old days when "football field still had green grass and sprinklers sprayed their water straight into the air" (TH, 132). Therefore, he cannot shoot him but Hale is not as merciful as Lolo while informing him they are shutting down the water bounty payout programme and leaving him with no option but accepting the buyout money the Bureau of Reclamation has offered and leaving his patch permanently. At first, he is reluctant to accept the offer but soon he is convinced that "Big Daddy Drought's here to stay. He clutches the check and its key codes to his chest" (TH, 135).

As it is seen, climate change becomes more comprehensive problem in social and ideological agendas. In this sense, ecocriticism best serves when it involves in a variety of circumstances such as aesthetic, psychological, historical, national, ideological and so on by which all texts are conditioned. In this regard, Ursula Heise puts forward that ecocritical analyses "have often tended to assess creative works most centrally in terms of whether they portray the realities of social oppression and environmental devastation accurately, and what ideological perspectives they imply," and that such assessments are undoubtedly necessary" (2008: 258). Needless to say, "Big Daddy Drought" as they have called in the story leads to an apparent governmental oppression and social class distinction. Along with such ideological and social effects, this ecological condition has also psychological effect on individuals. When Lolo describes the panoramic vision of the city, he also seems to symbolically illustrate his own deterioration. "Lolo tops another mesa and stares down at the familiar landscape of an eviscerated town, its curving streets and subdivision cul-de-sacs all sitting silent in the sun. At the very edge of the empty town, one-acre ranchettes and snazzy five-thousand-square-foot houses with dead-stick trees and dust-hill landscaping fringe a brown tumbleweed golf course" (TH, 134). He has undergone an internal conflict at his work. He is supposed to rip tamarisk trees but he has to replant the seeds of the trees in order to maintain his business. Moreover, at the end of the story he is ordered to leave the land where he has lived so far. This may ruin his sense of belonging and make him desperate for his own future.

Obviously, climate change has many belated effects in different agendas. When considered from a wider perspective, it is clear that climate change has a direct influence on biodiversity in ecosystems. When Lolo rips tamarisk trees alongside the river to prevent their high level water consumption he unintentionally interferes in the natural cycle in ecosystem. This leads to reduced biotic diversity although the water scarcity problem seems to be managed. However, it is band-aid solution with more devastating consequences in the long run. As Robinson points as long as "[a]nthropogenic global warming was not mitigated in a timely manner and climate change continues to work against species survival in particular and biotic diversity in general" (2012: 56, 7).

In "The Tamarisk Hunter", Bacigalupi creates a quite possible scenario that we can end up with in the near future as long as policies about water management are loosely implemented.

This is not a regional issue, but it affects the world globally. According to the article by Iain Steward, a professor at the University of Plymouth, “Nearly two million people die from a lack of safe drinking water every year. And by 2030, half the world’s population could be living in areas of high water stress - places where there isn’t enough water to go round” (2019). Also, the report from “The Centre for Research on the Epidemiology of Disasters” shows that “Drought affected more than one billion people between 1994 and 2013, or 25% of the global total (2015: 7) and “there is little doubt that drought-disaster mortality, plus the associated economic costs, have taken a high toll in terms of increased hunger, poverty and the perpetuation of under-development” (2015: 23). To this respect, Bacigalupi, by means of his extrapolative style provides the reader with a chance to juxtapose a fictitious eco-dystopia set in the near future and the real world in the present. This comparison is crucially important since “Big Daddy Drought’s got his hands around Lolo’s neck today” (TH, 130) and the threat seems to be substantially expanding if actions are not taken to mitigate the effects of anthropogenic drought.

Conclusion

When Swedish chemist, Stave Arrhenius first claimed that climate change stemmed from mostly anthropogenic reasons (1986) even he could not foresee it would threaten the continuity of human race and all ecosystems. Climate change was for a long time and to some extent still is thought as a scientific problem. In this sense, ecocriticism makes the issue more accessible by giving the readers theoretical perspective. In doing so, reading a cli-fi text from ecocritical point of view provides people with a greater level of understanding about the effects of climate change disasters. In “Venice Drowned” for example, the readers are presented with highly realistic panorama of Venice in future which is almost completely submerged and its citizens are struggling to survive in tough conditions. The disaster not only causes the habitat loss but also threatens the cultural heritage and national identity of Venetians. The flood also causes great economic instability because of which Italian government has to change its attitude against some offences. Similarly, “The Tamarisk Hunter” is another cli-fi short story which has social and political consequences as well as environmental ones. In the story, California which is the most populated state and the major agricultural producer of the USA, is stricken by the drought problem that causes severe economic and social complications. Although both stories have explored different effects of climate change, they have a crucial common point which is the fact that the future of protagonists in both stories remain unclear. This ambiguity corresponds to the vicious circle of human being’s everlasting struggle to triumph over nature.

In order to break the circle, raising awareness among people through ecocritical reading of cli-fi texts is the useful way to mitigate the effects of climate change. However, it is not enough. The implications and reflections we have obtained from such texts should be transformed into action. In this sense, it will be a better idea to take proactive measures primarily in an individual basis. These measures should focus on offering people applicable strategies of addressing this issue in their daily lives. These strategies should include behavioural changes on their preferences of housing, transport, food consumption and their

lifestyles in general. It should be noted that an ecocritical reading offers a perspective through which the reader can perceive that a literary text engenders an awareness of the environment. Therefore, it could be concluded that individual action elicits productive reactions and in this sense, cli-fi texts could be the alternative to direct the readers into contemplation on individual basis about the comprehensive and belated effects of climate change which could be an apocalypse for urban spaces.

Bibliography

- Bacigalupi, P. (2008). The tamarisk hunter (ed.), *Pump six and other stories*. USA: Night Shade. pp. 123-237.
- Buell, F. (2003). *From apocalypse to way of life: Environmental crisis in the American century*. New York: Routledge.
- Garrard, G. (2004). *Ecocriticism*. London: Routledge.
- Hamilton, S. (2003). Traces of the future: Biotechnology, science fiction, and the media (ed.). *Science Fictions Studies*, S. 30(2), pp. 267–282.
- Heise, U. (2010). Afterword: Postcolonial ecocriticism and the question of literature (ed.). *Postcolonial green: Environmental politics and world narratives*, pp. 251–258.
- Heise, U. (2016). *Imagining extinction: The cultural meanings of endangered species*. London: The University of Chicago.
- Johns-Putra, A. (2016). Climate change in literature and literary studies: From cli-fi, climate change theatre and ecopoetry to ecocriticism and climate change criticism (ed.). *Wiley Interdisciplinary Reviews: Climate Change*, S. 7, pp. 266-282.
- Kaplan, E. (2016). *Climate trauma: Foreseeing the future in dystopian film and fiction*. USA: Rutgers University.
- Kluwick, U. (2014). Talking about climate change. *The Oxford handbook of ecocriticism*, pp. 502-519. New York: Oxford University.
- Rayner, S. (2009). Foreword (ed.). Why we disagree about climate change: Understanding controversy, inaction, opportunity. Cambridge, UK: Cambridge University. XXI-XXIV.
- Robinson, K. (2010). Venice drowned (ed.). The best of Kim Stanley Robinson. Canada: Night Shade Books, pp. 1-19.
- Robinson, K. (2005). *Fifty degrees below*. London: Harper Collins.
- Robinson, K. (2012). *2312*. New York: Orbit.
- Svante, A. (2009). On the influence of carbonic acid in the air upon the temperature of the ground. (ed.), *Philosophical Magazine and Journal of Science*, No. 5(41), pp. 237-276.
- Trexler, A. and Johns-Putra, A. (2011). Climate change in literature and literary criticism. (ed.), *WIREs Climate Change*, No. 2, pp. 185–200.
- Tweed, C. and Sutherland, M. (2007). Built cultural heritage and sustainable urban development(ed.). *Landscape and Urban Planning*, No. 83(1), pp. 62-69.

Electronic resources

- Arrhenius, S. (2005). The father of climate change. The Guardian. Retrieved from <https://www.theguardian.com/environment/2005/jun/30/climatechange.climatechangeenvironment2>. (Accessed: 07.04.2019).
- Climate Change 2013: The physical science basis, IPCC fifth assessment report. Retrieved from <https://www.ipcc.ch/report/ar5/wg1/>. (Accessed: 11.03.2019).
- IPCC, 2013: Summary for policymakers. In: climate change 2013: the physical science basis. contribution of working group I to the fifth assessment report of the intergovernmental panel on climate change. Retrieved from https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_SPM_FINAL.pdf. (Accessed: 18.02.2019).
- Macfarlane, R. (2005). The burning question. The Guardian. Retrieved from <http://www.guardian.co.uk/books/2005/sep/24/featuresreviews.guardianreview29>. (Accessed: 18.04.2019).
- Morton, O. (2008). Heroes of the environment 2008. Time Magazine. Retrieved from http://content.time.com/time/specials/packages/article/0,28804,1841778_1841779_1841803,00.html. (Accessed: 20.04.2019).
- Pearce, F. (2015). Drought is a global problem. The Guardian. Retrieved from <https://www.theguardian.com/global-development-professionals-network/2015/oct/09/why-isnt-there-a-global-body-to-monitor-drought>. (Accessed: 29.02.2019).
- Sullivan, J. (2017). Can science fiction save the earth? Retrieved from <https://lithub.com/can-science-fiction-save-the-earth/>. (Accessed: 01.03.2019).
- Steward, I. (2019). How can our blue planet be running out of water? Retrieved from <http://www.bbc.co.uk/guides/z3qdd2p>. Accessed: (17.01.2019).
- The human cost of natural disasters: A global perspective. (2015). Retrieved from <https://reliefweb.int/report/world/human-cost-natural-disasters-2015-global-perspective>. (Accessed: 16.02.2019).
- World resources institute. (2015). Retrieved from <https://www.wri.org/blog/2015/02/3-maps-explain-india-s-growing-water-risks>. (Accessed: 16.02.2019).