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# **BIOMOZI** Ökokritika és populáris film

## ANNAMÁRIA HÓDOSY

### Biomovie

### Ecocriticism and popular film





A kötet megjelenését támogatta:



#### Készült *Tiszatáj Alapítvány Értékőrző Program* keretében.

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# The rhetoric strategies of biomovies

#### (Diverse cases: Big Miracle, Moana and The 5th Wave)

"The plight of these whales represents so much more than them being trapped in the ice. Soon, the water itself is going to be a threat to us all. In 15 years the biggest business in the US is going to be bottled water because we are not going to want to touch the tap stuff. And enjoy your fish now, because soon the mercury content will make it too dangerous to eat. So, if you want tremors and babies born with terrible... What?" The cause of the interruption is the cameramen, whose apparatus has so far followed the face of the indignantly reasoning Drew Barrymore, and who now puts the headset down, stops the camera and says with disappointment: "Congratulations, 10 million people just changed the channel."

The above scene appears in the feature film *Big Miracle* (dir. Ken Kwapis, 2012), the adaptation of the true story of the 1988 operation to free three gray whales trapped in the ice at Point Barrow, Alaska (Mulvaney 2012; Thompson 2012; Murphy 2012). A Greenpeace activist — played in the film by Drew Barrymore — had a crucial role in the positive turn of the events, and it is her talk to raise the interest of the general public that leaves the cameraman in the above scene utterly unsatisfied. "Nobody on the earth cares more about these whales than you do. So, tell people about it" says Adam, the cameraman to the woman who is called Rachel in the film. "What's Bamm-bamm like? [the whale calf, sic.] Or, to be honest, why do we care about whales this much at all?" Adam, otherwise a reporter who has "discovered" the news-value of the whales, seems to be firmly convinced that viewers would be bored or even appalled by the abstract scientific reasoning that the activist uses in order to persuade them to help the whales. Instead of the harsh critical tone, he wants a personal, lyrical confession that may create an intimate, immediate bond between the speaker, the

theme (i.e. the whales), and the audience. His wish doesn't remain unfulfilled, as Rachel is much more keen to talk about her love for the whales than preach about environmental problems they may represent. She gives a vehement explanation for our attraction to these animals:

Because even though they are strong and big and powerful, they are vulnerable too. And it just makes you wish that you were Superman, and you could just scoop them up and bring them somewhere safe. And what's heartbreaking is they know what's going on. They know they are in trouble and they are scared. And we ache for them because they're so much like us.... (she laughs) we get scared and we're vulnerable... and we need help sometimes, too.

Previously both Rachel's gestures and facial expression illustrated her "official" expert status, and her bodily posture was meant to support her arguments, which were obviously aimed at frightening people and in this way deterring them from further environmental destruction. In this scene, however, she speaks with passionate and poetic vehemence, and her face and body express joy and awe, instead of anger and rigor: she laughs, than becomes sad, and all this betrays some childish enchantment by the whales. The almost constant super close shots — along the vibrant expression of Barrymore's cute face — emphasize even more the magical transformational power of such "reasoning". If it would not be satisfactory, there are some shots of Adam's face as well, whose expression makes it evident that he is also overwhelmed by Rachel's new attitude, he is also enchanted and softened, although not enough to forget about turning the camera on, hoping that Rachel's emotional outburst will have the same effect on the audience.

At the beginning of the movie, the events are seen from the point of view Adam, a reporter striving for success, and while the perspective changes over time, the film is clearly concerned with the role the media played in the 1988 events and is curious about the "trick" of the re/presentation that could generate the "Big Miracle"., The above "film in the film" scene makes it obvious that the movie is inquiring its own medial possibilities and rhetoric tools that might be used for influencing the masses, while also questioning traditional methods of raising sensitivity towards problems of the natural world. The fact that in this case the 1988 events in Alaska were reimagined by a *feature film* instead of a documentary suggests that the difference between these two genres is

not to be found in their truth values: the feature film is not lying or manipulating facts in comparison with the truth-telling documentary. The difference lies elsewhere. While a documentary that works with mindnumbing facts and logical reasoning risks becoming boring and frightening, and this becomes unable to reach its goal of persuading people, the feature film — rich in contingencies, details, feelings, and romantic storyline — is much more appropriate to induce interest and involvement, similarly to Rachel's subjective and personal account of her feelings about the whales. Although such methods can be criticized by saying — as Rachel says to another self-obsessed and career-oriented reporter in the film — that: "You don't care about the whales. You care about ratings." The reporter's answer replies: "Yeah, the ratings what's going to keep the rescue going which is going to save the whales." Does this mean that Hollywood films are indeed more competent in representing the interests of nature than documentaries?

According to the literature concerned with this subject, the case is quite the contrary. As Paula Willoquet-Maricondi has it, feature films are not, while big budget popular films are even less suited to effectively convey the message of sustainability. Such films, as Willoquet-Maricondi cites Ingram, "conform to Hollywood's commercial interest in anthropocentric, human interest stories" (2010, 48). The narrative of feature films is usually built upon "dramatic exaggerations, instant consequences, and dazzling special effects" with "minimal attention to science; and its emphasis on the individualistic heroic actions of the male protagonist upstage any real concern and engagement with the reality of global warming" (2010, 48). Indeed, several critics stated that popular films represent the natural world and our relationship to it in accordance with the expectations of the viewers and the standard methods of the given medium; Bousé is quite convincing when showing that such formal tools as the camera setting, or close and slow-motion shots are more suitable for alienating us from nature than bringing us closer to it, even in the case of documentaries. Such films cannot present a satisfactory image neither of natural processes, nor of adaptive human behavior. Scott MacDonald stresses the virtues of artistic, small budget documentarist "eco-films" as opposed to the environmentally-minded feature films (2013, 19–22), which, as Willoquet-Maricondi confirms, often and easily lend themselves to multiple and even conflicting readings" (2010, 44). She also praises the *cinema verité* rhetoric that stresses the artificial nature of filmic representation that does not comply with the requirements of the "invisible style" of classical cinema, this way undermining the anthropocentric ideology behind the movie industry (2010, 8).

In the following I would like to soften this sharp contrast when interpreting popular films that can be characterized by the above mentioned "invisible style" and that cannot be labelled as environmentalist in the Igramian sense. Just as Big Miracle underlines, two of the three main elements of ancient rhetoric, ethos and pathos - i.e. moral and emotional inclinations — may prove to be more effectual in fiction films than logos — i.e. rational considerations —, predominantly referred to in documentaries. Many critics lean towards the opinion that identification with characters and emphatic involvement in their troubles, which are the consequences of the above mentioned rhetoric strategies dominating popular film narratives, facilitate the learning about ecological problems as well as making a commitment to their solution (cf. Brereton 2014, 186; Monani 2014, 226–7). What is more, as Ursula Heise points out, the scientific details of the phenomena of climate change and pollution "have often remained inaccessible to the general population.

To the extent that such scientific accounts reached a wide audience, it was through their recourse to a set of popular images and narrative patterns" (2008, 22). A striking example is the Gaia hypothesis, the eponymous goddess (originally suggested by the writer William Golding to the scientist Lovelock) who makes complete Lovelock's theory relying on cybernetic language with anthropomorphic imagery, mythological finesse and mysticism, in this way making the idea of the life-sustaining nature of the Earth more comprehensible to the masses (Heise 2008, 24).

Similarly, feature films are also able to take effect on people through mythologizing, anthropomorphizing, as well as incorporating popular concepts and images in general. In *Big Miracle* this is well illustrated by Rachel's monologue where she talks about the whales and says "we ache for them because they're so much like us". The rhetoric power of the projected similarity between the animals and humans is intensified

even more by naming the whales in the film after the members of the beloved Flintstones that places the animals in a nuclear family (which is similar to ours but better than that), while the truth value of such representation is highly improbable in the context of the scientific knowledge about the reproductive and social behavior of grey whales. Also, when Rachel talks about the vulnerability of the huge creatures, it echoes the popular view that the headway of the environmentalist movement in the 1970s was highly influenced by the first photographs taken of the "Blue Planet" from space by the astronauts of the Apollo– 17 on 7 December 1972, showing our everyday, robust and self-evident environment as a tiny and fragile glass ball hovering in the dark nothingness.

### **Climate denial and rhetorics**

Research suggests that traditional strategies used in campaigning for environmental protection are not appropriate for motivating people to introduce environmentally friendly changes in their lifestyle, what is more, they may have adverse effects. According to 2009 data, people in Great Britain are less likely to believe than before that climate change is real or it is induced by humankind, even if there is more evidence to prove it than before (White 2014, 211). Also, "in Australia, polls now suggest a decline in willingness to make any sacrifices at all in order to tackle global warming" (Higgs 2014, xxv). Many critics mull over this indifference and try to find out the reasons behind it. For Heinberg, fake optimism may be partly due to the oil industry, where "big production estimates boost stock values; governments likewise thrive on economic optimism" (Heinberg 2015, 138). In order to support this optimism with facts, certain corporations do not restrain even from falsifying data (Mosey 2009, 145–149). Although this strategy has not been utterly successful in undermining the credibility of climate-scientists, it might have been able to subvert the credibility of green movements, suggesting that their campaigns are used to support political interests and perhaps are aimed at diverting attention from other, more urgent political issues (Béres 2013, 30).





Many people think that environmental problems are not worth dealing with, believing that they are lies or simply cover stories for something else — in short, many believe that environmental problems are fictive, not real. This phenomenon is called "climate change denial", a term that has a special connotation in the context of psychology. As Sandra White formulates,

In any context, 'denial' is psychological jargon for the mind's defense mechanism which protects us from what we cannot cope with knowing, because the right internal and sometimes external resources are not in place. Its onset is not a matter of conscious choice. This innate and necessary psychological defense corresponds to involuntary bodily systems that activate when needed without our knowledge or consent. One of the most powerful triggers of denial is fear of loss. For Western civilization the pursuit of an ecologically sustainable world heralds the prospect of fundamentally changing much of what has been believed in and achieved over centuries, implying a change in the very foundation of our collective identity. For most people, ecological sustainability threatens the loss of what is precious to them, for example the car which often in our society carries status as well as utility. (White 2014, 212)

Is climate change denial a symptom of such anxiety? Is the lack of reaction to the danger its consequence? John Michael Greer argues that denying the obvious is a frequent reaction to the collapse of a belief system, and the belief system in this case refers to "the civil religion of progress", the endless growth of economy, and the steady improvement of the quality of life (Greer 2013, 57; 72). No one votes for a politician who promises a decline in the standard of living, and since they are elected only for 3-5 years, they are not committed to work for long-term environmental goals and tackle problems that are awaiting in the faraway future (Kovács 2008, 76). The threat of climate change is felt close enough neither in space nor in time to create a fight-or-flight reaction. Also, it is hard to find someone who is responsible for the trouble. We do not have simple schemes to solve such problems (Jamieson 2010, 84; Gardiner 2010, 88–90). Perhaps because "we have evolved to deal optimally with threats which are immediate, clear, visible, with simple causation, caused by a clearly identifiable 'enemy', and with obvious direct personal consequences" (Dodds 2011, 46). Which explanation is right?

In other words, is our inaction due to anxiety and subsequent defense mechanisms (individual and social) or the abstractness of the issue, which our evolved minds are unable to grasp? The answer determines which strategies are likely to be effective and which will backfire. Should environmental campaigners increase the emotional impact of their message and the sense of urgency to allow people to connect viscerally to an otherwise abstract issue? Or is the 'ecology of fear' (Žižek 2007) counterproductive as defenses against anxiety become ever more rigid and extreme? (Dodds 2011, 48)

Whatever is the motivation for denial, empirical surveys do prove that campaign strategies exposing the dreadful effects of human activity on nature, or mentioning the interests of future generations, often generate effects that are in contradiction with what is hoped for and what would be useful in generating changes in people's mentality:

In Transactional Analysis terms, Critical Parent strategies of blaming and shaming may lead to Adapted Child responses of denial, token compliance, and angry resistance [...]. On the other hand, rational-scientific Adult approaches, while motivating for some, seem to lack the emotional energy to catalyze deep change. (Key & Kerr 2012, 246)

At first sight the arguments of eco-documentaries suggest that this subgenre employs the Adult strategy of reasoning, and this explains why it can be more effective than big budget mass movies. Indeed, the frequent and allegedly "superficial" green themes of popular films as well as their possible self-contradictory readings and politically ineffectual message can be seen as narrative manifestations of the psychic denial of the Stubborn Child: it offers the identity position of "token compliance" on the one hand, or "resistance" to green "ideology" on the other hand. Is this why such films open themselves to a Bordwellian "symptomatic" interpretation? After all, the concept of narrative as a "symptom" — at least in the context of psychoanalytic literary and film theories — presumes an organization in which a "latent content" (what the film really talks about) is transformed by various *defense mechanisms* into a "manifest content" (what the viewers consider to be the film's plot, summarized in various lists and blogs).

This idea is based on Sigmund Freud's theory of dreams, according to which the main function of dreams is to transform forbidden, repressed psychic content through defense mechanisms, displacement, sublimation, projection or — among others — denial. In dreams the repressed content can be expressed in disguise or in ciphers that cannot be decoded by the conscious ego, therefore it does not become disturbing, and does not demand to be guarded by consuming psychic energy either.

The concept of dreamwork soon proved revolutionary in the interpretation of literature, too. Not only the most frequent rhetoric tools and figurative modes of expressions can be correlated with the various defense mechanisms (sublimation to metaphor, displacement to metonymy, projection to personification, etc.), but it also provides an explanation for our attraction to arts, the "irreducible" meanings of artworks and their "instinctive" effects. Although at the early stages of psychoanalysis critics were often looking for the author's early psychosexual traumas in their works (and some of them continue to do so even today), theories that place the text into the center of investigation try to reveal the traces of some collective neurosis in the narrative instead. This was the strategy that inspired Bruno Bettelheim's brilliant interpretations of the Grimm tales; in these readings he insisted that stories such as the Grimm tales express and help to solve "average" traumas of an "average" childhood. And it is for this reason that they are so interesting and instructing for most of us.

The films I am going to analyze here are — in my interpretation mostly about something else than they seem to be about, and — in my opinion — they usually express ecological problems in a metaphorical way. In this way they are able to represent ecological issues as manifestations of "defense mechanisms" that are similar to the Freud's dreamworks, or to such texts that Bettelheim and the eco-psychoanalyst Dodds talk about. If we consider popular science, scientific works, and documentaries as texts that confront us with problems of our environment, the image we are given concerning our present and future is usually enormously dark and threatening. According to Richard Mosey, "the American public is too uninformed and too preoccupied with its own problems to grasp the forces at work whose actions will dramatically alter the world as we know it, precipitating a plunge into chaos at best, if not actual extinction" (2009, 4). In the Introduction to the seminal book on eco-psychology titled Vital Signs edited by Jane Rust and Nick Totton we read that:

It may well be that the future role of eco-psychology will be to help people manage the pain and despair that will accompany "the end of the world", and to preserve some sort of hope. Not that the world will literally end—so far as we can see now; but our current human world, the world we grew up in, will cease to be viable: millions or billions of us and trillions more other-than-humans will die, the mass extinction of species that is already underway will accelerate, and a large proportion of the planet will become uninhabitable by humans. (Totton-Rust 2012, xviii)

In the shadow of such threats a contemporary human being's situation becomes tragicomically similar to the state of the average child recalled by Bettelheim, for whom

it seems that his life is a sequence of periods of smooth living which are suddenly and incomprehensibly interrupted as he is projected into immense danger. He has felt secure, with hardly a worry in the world, but in an instant everything changes, and the friendly world turns into a nightmare of dangers." (Bettelheim 1976, 145.)

Since climate change denial is a defense mechanism, it would seem logical to formulate a hypothesis according to which Hollywood films offer the opportunity for narcissistic ignorance towards climate change and ecological crisis in general. However, it is also possible that popular films are effective exactly where open environmental didacticism is inappropriate. I think that the following films do not put into operation strategies of climate change denial, quite the contrary, they successfully break through the "defense lines" of the audience, crawl under our skin, and slowly transform us. If this unscientific, rather intuitive opinion was to be translated into a rational hypothesis, it would not state that mass films employ the defense mechanism of denial; what it would propose is that they employ defense mechanisms against (climate change) denial. In other words, it communicates phenomena, problems, tensions, and tasks that we know about but we are at pains to avoid facing them with the help of rhetorical devices that are similar to and have analogous function as those used in the Freudian theory of dreamwork.

Without the fantasies that are embodied in "biomovies" we would have the same fate as the child who "fails to get to know his monster better, nor is he given suggestions as to how he may gain mastery over it. As a result, the child remains helpless with his worst anxieties much more so than if he had been told fairy tales which give these anxieties form and body and also show ways to overcome these monsters." (Bettelheim 1976, 120). Biomovies make it possible to process our "ecological fears" without facing them directly, and in this way we can transform our inherited anthropocentric perspective into an ecocentric one without having to make a conscious decision towards such a change. This may not be the most we, humans can achieve, but it certainly is something. At least this approach resolves the dilemma that everyday discourses and grassroots or media campaigns were not able to unravel, as they tried to respect the psychic integrity of their target audience, and entice them at the same time to act against their most cherished values and traditions (see White 2014, 213). The "multiple and self-contradictory" readings that Hollywood films are prone to generate can therefore be not only the consequence of their supposed poor quality and superficial nature, nor the effect of the polysemantic nature of the film text as such.

Sometimes this ambiguity is due to the "dreamlike" structure of the narrative in the Freudian sense, since, as Freud says and we all know, the content of dreams "is often entirely absurd and confused — sometimes only the one or the other", which is due to the fact that it is "a mutilated and altered transcript of certain rational psychical structures" (Freud 1960, 159–160.) Besides, ambiguity and contradictory meanings are not necessarily perceived negatively. As opposed to the open ecopropaganda, David Whitley believes that the best potential of feature films lies in the fact that they "rather than simply clarifying a particular view of reality on behalf of viewers, [they] may enable reflection on the contradictions inherent in any culturally mediated perception." (Whitley 144). Whitley refers to Sean Cubitt, who thinks that it is not the fault but the virtue of movies that "many are far richer in contradictions and more ethically, emotionally and intellectually satisfying than much of what passes for eco-politics today" (Cubitt 2005, 1).

In the next part of this chapter I will try to demonstrate my hypothesis on the basis of two classical films from the 1970s that have already been examined from an environmentalist point of view. Then, the ecocritical strategies of "biomovies" will be demonstrated on two fresh movies that intend to target a younger audience. In these films I will attempt to outline how ecocritical meaning is constructed in these films, how they communicate ideas and values about our attitudes toward the environment without openly representing such themes. As opposed to my readings found in later chapters that focus on certain themes and aspects of *environ-mentality*, these interpretations aim to reveal how "ecological fear" is represented in the disguise of fears connected to situations that are highly fictional and unlikely, which helps the audience to better understand their real situation and the necessary tasks that are demanded from them. In this rhetorical performance allusions and allegorical meanings play a great part, but archetypical structures are also highly important, mainly because they are capable of attaching "instant" meanings to certain situations and decisions, therefore "exempting" the viewer from the trouble to find arguments for committing themselves to certain (environmentally minded) characters and their actions. Or, as it sometimes also happens, that is what helps the viewer to face the environmentally paradoxical or ambivalent nature of a situation that would seem perfectly normal from an everyday point of view.

### The archetype of redemption

The Omega Man (Boris Sagal, 1971), analyzed by Murray and Heumann (2009), is the second adaptation of Richard Matheson's horror novel I am Legend (1954) after The Last Man on Earth from 1964, and well before the 2007 blockbuster starring Will Smith. On the one hand, the film is interesting here because it is originally a vampire narrative, a category which deserves a whole chapter in this book due to its ability to represent certain aspects of our recent era's ecological sensitivity in a subliminal or sublimated way. On the other hand, it voices certain religious themes, what is more, its structure follows the most fundamental narrative of Christianity, that is, it centers on the narrative of redemption. It is worthy of attention because, according to many ecocritics, Christianity as a religion is historically complicit in the devastation of Nature in the Western hemisphere and has massively contributed to the headway of the "imperialist" view of the environment (a problem more systematically discussed in the following chapter). In the case of The Omega man, being a perfect example for apocalyptic narratives, the comparison between various adaptations is especially appropriate to highlight the rhetorical toolkit that promotes the emergence of the "green problem".

Every adaptation of the Matheson-novel begins with a virusinduced anomaly and its catastrophic aftermath. However, as opposed to the 1964 version and similarly to the 2007 movie, in *The Omega Man* the cause of the epidemic is attributed to the sins of the human race: the worldwide destruction is the consequence of a chemical warfare that was aimed at resolving a (fictitious) war situation. In this version of the narrative the Cold War anxiety is certainly as noticeable as the fears raised by the ecologists of the era — mainly fears from chemical pollution and overpopulation. While it is clear that a postapocalyptic movie may well reflect both themes, it also might be argued that the adaptation produced after the millennium perhaps provides a better reflection on the eco-perspective. In *The Omega Man*, an "everyday" scientific invention, a seemingly harmless intervention, a drug triggers the fatal mutation of a disease that turns people to albinos, zombie-like creatures, that are — or at least are defined — "vampires" in the diegetic world of the original novel and other adaptations. All this illustrates the growing suspicion of the post-war age about "development" as well as the deliberate interventions of man to "improve" nature. While the apocalyptic narrative that dominates the film cannot be identified with narratives predicting an ecological disaster, these two themes are nevertheless linked at many points:

Millenarian thinking has been found in cultures and societies across the world and throughout human history. Originally it was a feature of religious narratives, where a powerful supernatural force (God, or ancestors) acts to reward the devout and dutiful and usher in a new age of peace and justice. Secular apocalypticism (Barkun 1986) is a more recent phenomenon and green millenarianism is one of its more prominent manifestations. Owing an intellectual debt to Thomas Malthus (Linnér 2003), green millenarianism began in earnest with the rise of the environmental movement in the 1960s. The seminal text of the decade, Silent Spring (Carson 1962) told a story of humanity's use of pesticides destroying nature. The Closing Circle (Commoner 1972), The Population Bomb (Ehrlich 1971) and The Limits to Growth (Meadows et al. 1972), all warned of impending crisis due to toxic waste build-up, famine, and severe resource shortages respectively. Proponents of these views appealed to the authority of modern science to justify a given course of action. Following this tradition, apocalyptic framings are frequently encountered in discourses of climate change. (Heyward-Reynard 2013, 9)

The dominant presence of apocalyptic rhetoric is demonstrated both in the scientific literature and the media (Killingsworth & Palmer 1992, 38; Patrick 2007, 141), as well as in fictional works (Buell 1995, 302– 308), and this presence also can be evidenced in the various postapocalyptic films' environmental references mentioned above (Dodds 2011, 39–40). This structure is usually not limited to the representation of a "dead" world; rather, it is blended with the Christian narrative of the journey toward redemption in which a Christlike protagonist "converts" his fellow-mans' way of thinking by setting the example of "correct" attitude and sacrificing himself for the rest of his community.

The central idea of the Jewish-Christian tradition that God created man — unlike any other living being — in his own image, certainly did not benefit an egalitarian relationship between human beings and nonhuman others. Disrespect for the body and subordinating it to the spirit - legitimated already in Plato's philosophy - led to the sharp distinction between these two "spheres", and the relationship between them was strictly monitored, so that the history of our relationships with our bodies is also closely related to the history of our relationship with nature. Early ecocriticism judged the effect of Christian ideology as well as the consequences of the scientific revolution closely related to Christianity, mostly in negative terms, and compared it to the cyclical worldview of indigenous mythologies (White 2012, 12; Worster 1977, 27-28; Allen 1996, 243-244). Recently, however, there is a number of films that do not blame the ecological crisis on the Christian myth, but instead demonstrate that anthropocentrism is inherent only in certain readings — or rather in certain misinterpretations — of the biblical text, which could be understood otherwise, in "better" ways, as certain religious environmentalists propagate (cf. McGrath 2002, 80-82). This shift will later be examined closely in two films: Noah and Only Lovers Left Alive. For now let it suffice that the influence of Christian religious tradition manifests itself more indirectly, but more effectively in the structure of the redemption narrative, which is the skeleton of many ecological films, and in the case of eco-dystopic films it is an inescapable starting point for analysis.

The redemption structure can be found in most of the canonized environmental movies from the 1970's. We might think that the reason behind this is the need to find a someone responsible for the world's turning into a dangerous place: "when the earth becomes a model not of permanence but of sudden, unexpected, and devastating change, the number of people suddenly seeking an explanation in obscure Scripture or conversations with dead people or a Soviet conspiracy will certainly increase" (McKibben 2006, 156). However, the structure of the redemption narrative does not serve to give a supernatural explanation for all the alarming events; rather, it places the sins committed by humanity against the environment into a moral framework and provides models for taking responsibility.

The protagonist of *Soylent Green* (1979) (played by Charlton Heston) and the key character in *China Syndrome* (1979) both die to highlight the deliberate destruction of the environment for the financial benefit of those in power. The protagonist of *Silent Running* (1972), "a St Francis-figure dressed in a monkish white habit, who talks to the animals in the forest" (Ingram 2000, 180), sacrifices his life to save the tiny bit of nature he feels responsible for. A couple of years later, the *Pale Rider* (1985) also uses Christian symbolism when the protestant preacher likened to one of the vindictive spirits of the Apocalypse appears on the scene to fight against the entrepreneur who has destroyed the highlands. However, an apocalyptic narrative — as the one found in *The Last Man on Earth* — cannot in itself *create* the eco-problem. To do this, an "environmental fable" is needed, which is missing from the first and the last version of *I am Legend*, even though the references to the redemption narrative are stronger than they usually are.

In all adaptations of the novel, the protagonist first thinks that there is no other living or at least no other healthy fellow human being left alive, only sick and zombie-like "monsters" remained. He seems to be alone "in the wilderness with Satan". However, it turns out that there are other survivors who could be saved with the blood of the diseaseresistant hero (with the help of the antibodies in his blood, as it is scientifically explained). However, the Christlike sacrifice is rejected by the sick/damned majority who do not want to get rid of their undead state because they consider it a new stage of human evolution.

The scene of the death of the Omega Man (just as the death-scene of the protagonist of *The Last Man on Earth*) clearly evokes the characteristic images we carry in our heads about the sufferings of Christ: Neville leans against the pillar of a fountain forming a cross with his body, with a thorn crown on his head and a wound on his side that changes water into blood. Before he dies, he gives the medication — made from his blood and kept in his side pocket — to his disciple, who is a former university student as well as the leader of the remaining group of people who are healthy or worthy of redemption.

In *The Omega Man*, the references to redemption not only reinforce the apocalyptic narrative, but also outline an environmental conflict in the background. Those who are infected with the virus and get a zombie-like appearance firmly believe that the epidemic is God's punishment for the sins of technological progress, while the undead state is the sign of forgiveness that the "Brotherhood" (as they call themselves) must earn and preserve by turning away from the achievements of civilization. In their eyes, Robert Neville is the embodiment of the Antichrist, which is proved by his not having received the "stigma"— the "scars" of the undead that are associated with the wounds of Christ. Neville's "guilt" is also indicated by the zeal with which he uses all the tools of technology to hunt down members of the Brotherhood.

The healthy survivors who support Neville neither do hesitate to use technology (weapons, motorcycles, etc.) against the undead. Still, while Neville occupies the main building of the city and spectacularly enjoys the remnants of power and luxury, the rest of the survivors (all young people or children) go to a country house in the village and plan to move to the distant hills to start a new life. As Murray and Heumann point out, the civilized figure of Robert Neville occupies an intermediate space between the two extremities, with the fanatically technophobic undead on one side, and Neville's "disciples" seeking a natural lifestyle on the other. Murray and Heumann consider it self-evident that the healthy group's "hippy-like" views equal the *healthiness of a hippy attitude*, implying that going to the mountains as a happy "return to nature" propagated by the counter-culture of the '60s is the contemporary form of salvation (2009, 105).

Although the film shows different versions of the truth, it is still not unbiased. While it is clear that the zombies cannot be called simply dazzled, mad or stupid, the difference between Neville and these creatures rather dramatizes the differences in the views about the environment that is assumed by the movie to exist between the average viewer and green activist, which in turn for the audience of the 21<sup>st</sup> century may evoke the sometimes radical differences between various ecological trends after the millennium. The rejection of the lifestyle and epistemology of Western technological civilization and blaming it for environmental problems is also a major element in current ecological trends. Indeed, as it is clear by now, the indicators of environmental damage have radically grown since the age of scientific and industrial revolution due to the exponentially increasing fossil energy use, the continuous population growth, urbanization and the resulting additional burdens. As Carolyn Merchant and others have demonstrated, this is by no means the outcome of our incomplete scientific knowledge or technological know-how, but rather the result of perceiving the environment as a lifeless substance, a resource, which is central to the profit-oriented capitalist economy.

The technophobia of the "zombies" in a world that has been devastated by modern technology and the greedy struggle for resources is perhaps not as delirious as the film seems to suggest at first sight by depicting zombies as madmen and demonizing the spokespersons of technophobia. We are presented with a similarly biased image of Neville, too: he is alone in a (still) full-fledged industrial world and seems to have nothing else to occupy himself with but killing and constantly, almost maniacally shifting luxury cars and clothing, which strongly recalls the "conspicuous consumption and waste" of industrial society.

However, what is normal here, or more precisely what is shown as a normal reaction to an abnormal situation, is actually a nostalgic recall of a peaceful, but inherently problematic past. The revealing of this normalizing rhetoric can point out that Neville's lifestyle corresponds precisely to the "domination model" of the culture-nature relationship that resulted in the destruction of the latter. Moreover, even the dreams of the "disciples" about getting back to nature can be perceived as reenforcing the "imperialist" view of nature — after all, moving to the frontiers, according to the rhetoric of colonialism, is the beginning of the conquest of the wilderness. It is also possible that the opposition of the zombies and the hippies within the diegetic world the film is actually applying the "divide and rule" principle in order to gain the sympathy of the audience by counterposing the "militant" activism represented by the zombies to the peaceful loving of nature by flower children, in this way favoring the (contemporary) economic elite embodied by the ultimate hero. Neville.

From this perspective, the betrayal of Neville's lover is not the equivalent to the treachery committed by Judas, but may be the demon-

stration of repentance, or a kind of Pauline conversion. At the beginning of the dreamy scene that shows this sudden change, the girl is going "shopping", and when she returns she slowly pulls off her turban of her head to show her hair and skin having grown cloudy white similarly to the zombies. Is she going to change sides because she became a zombie, or she became a zombie because she realized that she had previously stood on the "wrong" side? Why does this happen exactly after shopping, and why is it displayed with an appearance that (in this case) recalls aging?

Is it possible that this scene tries to demonstrate the meaninglessness of narcissism and hedonism inherent in conspicuous consumption? If this is the case it is also possible that the film cannot or does not want to choose from the views of nature it presents, but rather leaves it to the viewers to decide.

The references to the Christian redemption myth in this film and other similar works do not serve only to enable the comprehension of the narrative through the use of universal symbols. From the 1970's the trope of "sacrifice" is an integral part of ecological discourse, and it is this element that is the least acceptable to the general audience. We hear again and again that we should make sacrifices in order to achieve a better world, we should make smaller our carbon footprints and waste less, we should not consider material goods as the basis of our wellbeing, and above all, the most "required is the sacrifice of our collective illusion of separated superiority" (White 2012, 223). Unfortunately we are not ready for such a sacrifice:

Few of us are ready to forego a car or those airplane trips to visit our scattered families. Few of us will accept a standard of living lower than our parents. The middle class will struggle to keep up, to beat back the "fear of falling." These concerns are hard-wired into the human psyche even during times of economic recession and financial hardship. For all but the fortunate few, status will increasingly be maintained with borrowed funds until the inevitable day of reckoning and the recent economic troubles have shown how close we are to that day. (Mosey 2009, 134)

The ecopsychologist Sandra White assumes that in such a context references to the Christian myth and the use of archetypes (as the final "reckoning" in the above citation) functions to supply the collective consciousness and state of mind necessary to such a giving up; it offers "a unified, strongly bonded context of a shared frame of reference in which sacrifices can be lovingly or fearfully made and their purpose commonly understood, compassionately witnessed and universally upheld" (White 2012, 217).

In environmental films the conversion theme is just as frequent as the apocalyptic narrative, sometimes including metonymically those disaster scenarios that provide the context of a conceptual "awakening". For example, in *China Syndrome*, the (nuclear) disaster appears only as a theoretical possibility, the proximity of which turns the leading engineer (Jack Lemmon) from his loyalty to the firm that operates the power plant towards a commitment to unveil the errors in the construction and to accept ultimate martyrdom. The conversion narrative is used in a very different genre in the acclaimed documentary *Blackfish* (2013). The film investigates the circumstances of a series of deaths caused by captive killer whales and reveals the possible causes of these "accidents". Several dolphin trainers are testifying to the cases and are also bearing testimony to the issue of animal release. As it becomes clear from the presented videos, they had all been enthusiastic representatives of the entertaining industry of the dolphin show until they saw how stupid and harmful the system was that they had been helping to maintain. These individual stories of ecological conversion are perfectly crowned by the film's ending that shows the caretakers watching free orcas in their natural habitat, and one of the trainers even admits that this experience filled his eyes with tears. Due to the clever strategy of the documentary, the trainer whose death provided the starting point for the film becomes a martyr instead of simply being the victim of a murder or accident. She is thus turned into a mythic figure, embodying a "teacher" with disciples that the other trainers are "converted into" — and this makes them able to persuade the viewers to stand by the "Christian" case of freeing the dolphins whose freedom is represented as if being "redeemed" in the heaven of Nature, and whose fate this way is rhetorically likened to the forgiveness to the "sinners" who "helped" to crucify their savior

### Climate crisis as a frame of reference

Besides the redemption narrative certain generic conventions are also very suitable to offer a structural basis for the environmental message. Along the apocalyptic and redemption visions of the "green millenarianism", the genre of horror can be very productive in mediating the danger brought about by environmental destruction that is lurking behind our peaceful everyday reality. In my view, the horror film The Day of the Animals (dir. William Girdler, 1977), analyzed shortly in Ingram's book, is more sophisticated and more consistent than Ingram believes (2000, 7–9). There is no doubt that the story — according to which forest animals attack people, eradicate the entire population of a small town, and hunt down most members of the protagonist's tourist group — is at first glance no different from the general scheme of horror films. The fact that instead of mysterious monsters or psychopathic killers it is mad (or rather too clever) animals that play the central characters is apparently a variable that does not change the movie's deep structure, especially that the film is not the first one with such a rendering of characters. Ingram deems the film remarkable only because there is a caption before the credits that justifies the film's fictional story with a real scientific "discovery", namely the ozone depleting effect of Freon gas, stating explicitly that the movie aims at demonstrating the impact of increased UV radiation on animals. According to Ingram, this inscription, though noteworthy as a proof of the increasing interest in environmental damage, is a good example of how real references make a movie discredited or even parodied if the discrepancy is too large between the scientific results of the real world and their consequences in a fictive world. (Contemporary viewers were allegedly laughing on the movie at the screening.)

In my view, the film is rather skillful in shaping the mis-en-scene and manipulating the familiar images so that the visuals create not only the mood necessary for a horror film but also the connotations that even after or because of the inscription — continuously uphold the "silent" (eco-)critical commentary to the narrative. Let's take one of the first conversations as an example. After a scream, the local tour leader, while chatting with the sheriff, looks up at the eagle sitting on the nearby sign-post and notes, "Look at that bird! They never come here, they live near the peak." The sheriff then warns the tour leader that "there have been many accidents lately" and he "has a bad premonition". This dialogue anticipates and outlines the plot — unfortunately, in a too predictable way. The opening images behind the credits also contribute to this sketchy forecast of the events as they show close-ups of various forest animals gazing into the camera, usually accompanied by some kind of powerful refraction partly obscuring the picture. The refraction represents the dangerous sunshine, and the animals staring at the camera make the impression as if they were monitoring us, what is more, preying on us, humans, obviously due to the radiation, which the introductory caption has already called attention to.

However, the pictures mentioned above are more ambiguous and controversial than that, carrying additional symbolic layers in themselves. On the one hand, the refractive light usually forms a cross, and at times it seems to radiate towards the animals as if they were targeted with some kind of laser gun. The shots are thus evoking the image of the hunt (that is hardly ever mentioned in the film), which makes the gaze of the animals staring at the camera not only threatening, but threatening with *legitimate* vengeance and the possibility of the conscious agency of animals. The latter is affirmed by countless scenes later in the film with cuts giving the impression that an animal is eavesdropping on the conversation of humans or informs his companions.

This cannot be attributed to the anthropomorphism common to nature films. The camera through which the animals seem to look straight *at us* turns the relationship between the viewer/viewed and subject/object upside down, and in this way the humans become the objects of reflection themselves: their exploitative intents are revealed and their bizarre outsider and superior position is questioned. Is it our right to look out for the animals? Is it right to penetrate and occupy their habitat — as tourists do? And is it a perfectly innocent alternative to make photos and movies of them?

The film is apparently absolutely not concerned with the damage caused by nature lovers, however. When one of the tourists starts making "innocent" photographs, the eagle seen earlier at the top of the signpost responds with angry screams and attacks the tourist. From then on, the camera often shows people from the perspective of the animals watching them. When a tourist boy starts throwing stones at the bushes, the scene from the eagle's point of view clearly illustrates that this kind of "fun" annoys not only the mother of the child. But even if the intrusion of civilization into the environment is not as disturbing — which is highly questionable in the case of mass tourism, and especially helicopter tourism —, why do we watch, photograph and film nature at all? There might be some unpleasant answers to this question, since the tradition of returning to nature is usually closely related to the ideal of unrestrained sexuality projected onto animal life, desire for liberation from the restrictive aspects of civilization, as well as the vulgardarwinist concept of struggle for survival. Indeed, the concept of ecopornography that has recently come into "fashion" is examined from the perspective of the need for such fantasies and the institutional methods for satisfying them (c.f. Welling 2009; Măntescu 2016). The question of sexuality is also present in the story through the character of a tourist who proclaims himself the leader of the group and almost rapes a fellow passenger only to prove his supremacy; this guy eventually gets killed. All in all, the opening images not only prepare the spectator for the bloody action, but also put them in a position that is not for sure at the top of the food chain, what is more, make the audience uncertain whether it is ethically correct to occupy such a position.

In horror films we have accustomed to the fact that the victims do not necessarily die according to some moral standards that deem them "sinful" or "innocent". Indeed, even from the point of view of environmental ethics, the victims cannot be categorized as "exploitative" nor the survivors can boast with the "green" title. The first person who dies is a woman who claims to be neglected by her husband, which is confirmed by the narrative: the fatal animal attack occurs when the husband turns away and does not pay attention to the woman. Soon after this tragic incident the newly widowed man finds a little girl along the river, whose parents may have died. From here, they continue their journey together: the little girl seems to take the place of the wife, giving a second chance to the man to prove his defensive skills until he finally gives his life to save the child.

The gender of these figures may have a metaphorical significance. The woman/girl seems to act as a symbol of the personified, traditionally "female" earth of whom "man"kind must take care according to the "pastoral model" of nature "who" must be defended to be able to heal, strengthen, develop and unfold her reproductive abilities. The inattentive husband thus represents humanity that has created the ozone hole, who does not pay attention to its environment, and neglects the "protection" of nature. And continuing this logic, it is also possible that the fatal "trip" to the mountain peak is an allegory of Western development, since at one point it turns out that the tourists cannot go through the way to the top because they ran out of food — overpopulation and scarcity problem —, and they find only heaps of junk instead of the repository they hoped for — waste management problem. Even staying in the area is not safe, and the tourists have to go downhill — they need to lower their needs, reduce consumption, and get used to limitations. The economic crash — consequence of the former idea that the peak can and must be conquered — is emphasized by the pictures of the ruined and evacuated small town in the valley.

Though the frame of reference is different as it discusses the current problem of climate change instead of pollution, the allusive nature of signification in *The*  $5^{th}$  *Wave* (dir. J. Blakeson, 2016) is very similar to *The Day of the Animals*. Otherwise, these two films are different in eve-

ry way. To provide a brief introduction, the film might be thought of as a post-apocalyptic version of *Independence Day* obviously targeting the "young adult" audience. The movie's identification pattern is built on the Bildungsroman structure paired with an invasion narrative: while the young protagonists fight off the wicked extraterrestrial aliens, they turn to mature, responsible and competent adults from the typical spoiled western children they used to be; they step into the role of their deceased parents and become the members of an alternative (postnuclear) family in a post-apocalyptic world.

There is hardly any reference in the film to the current state of environment or any ecological problems. The only case that could be counted as such is when the boy protagonist, Ben discusses with the invaders' leader whether whose case is more "ethical". The proof of mankind's higher morality in Ben's opinion is that "our kind would not wipe out an entire species", indicating that this is what the alien invaders intend to do with humankind. The alien calmly answers: "Of course you would. You have been doing it for centuries." Although Ben is groping for words while trying to refute the alien's allegation, still, that statement does not have any effect on the following part of the plot: it is not accentuated enough to debate the theoretical right of humanity to "own" the Earth, mainly because our heroes are occupied with practical self-defense. Thus, the belief in higher morality is left intact: as in the sci-fis of the 1950's, the victory over the aliens is associated with the victory of humanism, and humanism — concretized in the film as a preference for love and empathy — appears as a distinctive feature of Homo Sapiens. All things considered, the contradiction between the ecocidal and loving side of humankind is suppressed, and the perspective of the film offers as a point of identification an anthropocentric position that seems to be blind to the problematic aspects of our relationship to Nature.

It could be argued that it is precisely the *lack of ecology* that catches the eye, that the film represents the catastrophe of humanity in a way that there is *no harm done* to the environment by humankind, the catastrophe is *not* the result of anthropogenic effects on the environment, nor the consequence of human activity or "error" of judgment in any way. Similarly to *Armageddon*'s threatening collision with an asteroid or the extra-Solar threat of *Independence Day*, the center of the narrative is a disaster with humankind unquestionably innocent of causing. "What did we do to deserve...?" — Ben asks the leader of the aliens in the scene mentioned above. "Nothing. You occupied the space we need" — , the alien General answers. However, the innocence of humankind is not as obvious as it is *explicitly* implied, and not merely because of the anthropogenic extinctions the alien General alluded to. There are other *implicit* references, too: the representation of the alien invasion is accompanied by certain cultural echoes, connotations in the light of which the narrative can be read differently from the plot, "against the grain" if you like. This possibility is offered so convincingly that one may think that it is the very function of the narrative to *let* the concepts of ecological devastation *leak through* the invasion plot, so that the psychic energy the viewer gathers and turns against the alien enemy in the film could be redirected to a — perhaps preconscious — commitment towards actions needed to stop the continuing devastation of the Earth.

What kind of connotations are we talking about exactly? First, the title already reminds any superficial media consumer — the majority of us — to recall the five mass extinctions from the history of Earth. This association seems to be invalidated as the 5<sup>th</sup> wave of prehistoric extinctions resulted in the dying out of the dinosaurs and the rise of the mammals and humans, while the 5<sup>th</sup> wave in the filmic world aims at the total — and willful — extinction of the human race. While most media-excerpts make it quite clear that "extinction events are perfectly natural phenomena on Earth", they do not hesitate to add that "what is more interesting: it is highly probable that the next extinction event will not be caused by an asteroid or some natural disaster but mankind" ("A Földünk öt" 2014). Of course the film is not about that. Or it is? The first wave of the alien invasion consists of an electromagnetic wave that paralyzes all kinds of electronic devices, including cars, mobile phones and all those systems that are responsible for the convenience of western civilization: it make water pumps useless, stopping the flow of water from the taps; it stops refrigerators, so food supplies cannot be stored any more. According to the documentaristic Afterworld based on William R. Forstchen's bestseller One Second After (2009), an EMP attack is not impossible as all in our real world, and it does not even have to come from extraterrestrials. The effect of such an attack would be that of a "continental time machine that would move us back to the

nineteenth century." Such an attack "could damage or destroy civilian and military critical electronic infrastructures triggering catastrophic consequences that could cause the permanent collapse of our society, or any other one on the Earth" The events described in the novel are intentionally devised (just as in The 5<sup>th</sup> Wave) and they have nothing to do with ecological problems either. However, another bestselling German novel, Andreas Eschbach's Burn Out (2007) cleverly shows that the consequences of the oil depletion would be very similar to the situation described above. If the fuel that keeps the motor of capitalism in motion runs out, the economy that is built on expansion will collapse, researchers warn (Alexander 2011, 12–14; Gavin 2010, 313–319). In the developing countries "the unavoidable consequence would be famine, disease, and mass exodus; the lack of oil would lead to state failure and conflict over scarce resources would become endemic", so that people in the northern hemisphere "could hardly avoid a transition to a more community-based lifestyle. Despite the present affluence of Western European societies (or precisely because of it), this would be extremely painful and last for several generations" (Friedrich 2010, 4568). Even if the cause is not peak-oil but an alien attack, such a transformation is keenly represented in The 5<sup>th</sup> Wave as well, when the family of the protagonist girl is forced to find shelter in a refugee camp, where, in the background, the sight of a communal garden evinces the obligate implementation of a self-sustaining life-style.

Unlike an EMP attack initiated by enemy forces or extraterrestrials, the impending oil crisis is in close connection with the impending ecological crisis. Not only because the depletion of oil is an example of the depletion of the natural resources that is the manifestation of the irresponsible and still accelerating consumptive habits of Western Civilization, but also because this irresponsible consumption has been enabled by the energy gained from oil and is still built mainly on this kind of energy sources. This is one of the most important factors that has effected current ecological disasters indirectly on the one hand, contributing to the development and expansion of technological civilization, and directly on the other hand, via the emission of carbon dioxide that has brought about climate change, the spread of pesticides and fertilizers that pollutes soil and waters, the plastic particles that seep into the oceans and the air causing sickness in the living organs, etc. (Foster 1999, 18–22; Stehl et al. 2013, 244–246).

In The 5<sup>th</sup> Wave we see the girl protagonist by the river bank after the EMP attack, collecting water from the river in plastic bottles to satisfy the vital needs of the family. (It is lucky they have a river nearby). At this point comes the 2<sup>nd</sup> extraterrestrial attack in the form of earthquakes and floods. In fact, the aliens have to induce only on the former, since tsunamis are usually the results of underwater earthquakes, the consequence of which — as we get to know from the voice-over — is that "every coastal city, every island... was gone." Curiously enough, this is exactly what many scientists consider a necessary consequence of the climate change: if gases responsible for the greenhouse effect are not reduced, they say, the arctic ice caps will melt that will lead to a rise in the level of oceans burying many seaside territories and islands. It is not only a significant, but also a well-known problem that is signaled by blockbuster documentaries such as the *Before the Flood* starring Leonardo DiCaprio (Fisher Stevens, 2016), which dedicates a long part of the film to the sea-level problem. This is the theme of the eco-thriller The Sands of Sarasvati (2005) too, written by the Finnish Risto Isomäki, which represents earthquakes and a resulting tsunami in a rather similar way to The 5<sup>th</sup> Wave, with a key difference, namely that tsunamis in this film are imputed to the melting of ice followed by sudden drops of enormous ice cracks into the water. Isomaki risks the hypothesis that earlier civilizations in the history of the Earth had the same fate: it could have served as a lesson, but we did not learn from it. Kim Stanley Robinson's novel Forty Signs of Rain (2005) also forecasts floods as the effects of climate change, which are caused here not by big tsunamis but by continuous rains. As a review of The Guardian says, it is , a novel about climate change and the failure of our culture as a whole to respond", and Robinson's "great achievement here is to bring the practice of science alive [...]. Robinson's critique of science is heartfelt, and one McKibben would no doubt echo: scientists should stop being tools in someone else's endgame. But his message to us all is no less challenging and urgent" (Smith 2004).

The third wave of the extraterrestrial attack happens with the help of a mutated flu virus spread by birds. The possibility of such a scenario is mentioned in the media almost every week without any role given to aliens. Frequently, the possibility of epidemics is presented as a natural disaster that happens without a cause and is a part of life, at least if man does not succeed in mastering it. However, nowadays another opinion is just as well-known, according to which civilization has a great role in aggravating the problem. Any casual search on the internet would result in millions of articles about the problem "that drug-resistant superbugs, which have been labeled 'nightmare bacteria', are spreading faster and more stealthily inside US hospitals than previously thought" (Hrala 2017). We may read such news almost every day, and most of us have also heard that "this kind of resistance" is prompted by the "overuse of antibiotics in humans and livestock" (McNeil Jr. 2017), which, beside corporate greed, is again a sign of our anthropocentric hubris:

it is commonly expressed that physician misuse of antibiotics is the cause of antibiotic resistance in microbes and that, if we could only convince physicians to use antibiotics responsibly, we could 'win the war against microbes.' Unfortunately, this belief is a fallacy that reflects an alarming lack of respect for the incredible power of microbes. (Spellberg et al. 2008, 156)

Globalization is also a factor that contributes to the intensification of the danger of epidemics, since "one's immune system is tuned to one's part of the world, but human greed, aggression, curiosity, and technology chronically thrust one into contact with the rest of the world" (Crosby 2004, 31). It is not hard to believe that with bacteria-resistant "superbugs", "globalisation makes the spread of a worldwide killer disease inevitable" (MacKenzie 2017).

Although "virocalypse" is a favored theme in disaster movies, it has rarely been connected to ecological themes, except for the scenario when a lethal virus is spread intentionally by some eco-terrorists to solve the question of overpopulation. Some of the films on the subject have already been mentioned in the first chapter. In literature, Margaret Atwood's *Oryx and Crake* (2003) presents a similar situation. In the novel and its sequels a scientist of the dystopian and ecologically devastated future decides not only to reduce the population of Earth with the help of a biotechnologically developed supervirus, but wants to eradicate Homo Sapiens in order to replace it with a new, genetically manipulated humanoid species that is less harmful for its environment. We might as well say that in this novel the place of the failed humankind is taken over by "aliens", and the virus attack happens because "they need the place". Nevertheless, things turn out rather similar to the scenario of *The*  $5^{th}$  *Wave*, but the similarity begins with the realization that epidemics have always been the weapon used by "intruders" — that is, human beings from other parts of the Earth — in wars and conquests:

"Throughout the Americas, diseases introduced with Europeans spread from tribe to tribe far in advance of the Europeans themselves, killing an estimated 95 percent of the pre-Columbian Native American population." (Diamond 1997, 77–78).

All in all, the first three waves of *The*  $5^{th}$  *Wave* signify adversities that might as well be the signs of an ecological crisis; the role of the aliens thus can be understood as a projection and *alienation* of the role of humanity through the disastrous effects. But the fourth wave is somewhat different. Does it signal the end of the parallel vision between the crisis envisaged by climate scientists and that of extraterrestrial invasion? In fact, the fourth wave refers to the occupation of human bodies by the aliens who begin to hunt down real humans in their disguise. The fifth wave is the climax of this process: the final eradication of mankind. As it has already been alluded to, an ecological catastrophe could have the same effect — and it should not be imagined as a slow but "peaceful" death due to a lack of water and food that sooner or later would occur. The prognosis describing this turn of events is much worse and its violent nature is highly similar to the events that are presented in the film: "Problems of deforestation, water shortage, and soil degradation in the developing countries lead to wars there and drive legal asylum seekers and illegal emigrants to the developed world. [...] And all over the globe there would be a battle for the world's arable land, energy and, especially, fresh water" (Mosey 2009, 71-72). According to Jackson, "[t]hose who hope that growth will lead to a materialistic Utopia are destined for disappointment. We simply don't have the ecological capacity to fulfill this dream. By the end of the century, our children and grandchildren will face a hostile climate, depleted resources, the destruction of habitats, the decimation of species, food scarcities, mass migrations and almost inevitably war" (Jackson 2009, 203). "There will be wars fought by US troops aplenty in the years to come, if the US government tries to continue to play for the oil industry in particular and for capitalism in general, the twenty-first century equivalent of the nineteenth century British Empire. For what started out in the nineteenth century as a tragedy, will be repeated in the twenty-first, not as farce, but as catastrophe" (Caffentzis 2010, 565).

Historical evidence ensures that after the depletion of resources men will turn against each other and the cooperating groups will see outsiders not as kin but as *alien*; the surviving humans therefore will start exterminating each other. That is exactly what happens in *The*  $5^{th}$ *Wave*. Of course, the fight between humans here is erupted not due to their situation but because of the manipulation carried out by extraterrestrial invaders: aliens, disguised as the officials of human armed forces, enlist human youngsters in order to make them hunt down other humans believing they are aliens. This continues until our heroes realize the truth and desert the army to start a guerilla war against the intruders. The film ends with this turn of events and the story is closed only partially in order to sustain the possibility of its seamless continuation, if justified by financial success.

Is it possible that the machinations carried out by the extraterrestrials and the prognoses pertaining to the ecological crisis are leading to similar results only *by accident*? If they are more than mere incidents, can they be attributed simply to the fact that the end of the world is imagined according to very old and identifiable conventions and clichés, which are also echoed in the representations of ecological crises in contemporary media? This kind of connection will be justified several times in the following chapters in the case of films that become the carriers of ecological messages only by means of certain associations and the recognition of certain references. But it is also possible that *The* 5<sup>th</sup> *Wave* represents the theme of environmental destruction by using these clichés as rhetorical "defense modes" á la Bettelheim.

It is striking that the role of humanity in the extinction of species is mentioned only allusively, in the form of a rhetorical parallel, which means that the problem of ecology is raised and blurred simultaneously. While the film declares the innocence of mankind of the turn of events, the enemy is represented *exclusively* in human disguise, that is, the film presents the destruction — in accordance with the limited capacity of our "primate" brains — as the manifestation of a clearly identifiable intention with human(oid) proportions, and that can be forecasted and prevented. It also must be noted that the film anticipates the series of waves of destruction in a limited time scale, which makes the dangers of the movie's fictional world much more believable as compared with the vague "possibilities" outlined by climatologists.

Possibly this serves to please various types of audience, especially those who do not want to hear about anthropogenic environmental threats at all and those who do want to hear more about it. Yet, if this is the case, the movie might please these two kinds of viewers even when they are embodied *by one and the same* person: when the interest towards climate problems is present in the viewer in a repressed form and therefore must be approached in an indirect way. For the same reason, the allusive rhetoric of the film may be able to shape the interests of those "young adults" who find various identification patterns in the movie. They are the ones who have the most to lose in case of an ecological disaster, but they are also the ones who will soon be in positions from which they may form the future.

### The rhetoric potentials of anthropomorhism

The animated feature film Moana (2016) targets an even younger audience in a similarly indirect way. The environmental message here is also connected to a system of allusions that are based on mass and elite cultural codes, mythical analogies as well as archetypal motifs and personifications. So, on the one hand the film refers to (1) an already existing eco-paradigm that works as a "horizon of expectations" just as in the case of The 5<sup>th</sup> Wave, while, on the other hand, it also incorporates references (2) to environmental studies that are accessible mainly to adults already interested in the problem. In addition to this, and in spite of the fact that it processes an exotic myth, (3) it bases its narrative on a structure that is very similar to the Christian redemption story, which helps the audience to predefine the values attached to characters and events in the narrative. Finally, the most definitive characteristic of the film is (4) the consistent use of such archetypal personifications such as Nature represented as a woman/mother and Culture represented as a man, the "meaning" of which can be decoded even by the least mediasavvy children. These allusions, however, do not necessarily contribute to the comprehension of the plotline. Neither do the reviews of the film
acknowledge them, regarding the film instead as a postcolonial Bildungsroman.

The reviews concentrate on the film's Disneyesque representation of the natives of Polynesia, which is an idealistic depiction but at the same time based on history. Apart from the fact that the story's mise-enscene is an archaic setting where people's lifestyle is close to nature, ecological didacticism does not disturb the flow of the narrative. The present time of the film, however, is closely intertwined with the ancient past, and the effects of the past unfold in Moana's life. In theory this interconnection could make the film an excellent medium for ecoproblematics, since scientific environmental texts usually intend to represent our present-day dangerous situation as a consequence of our ignorant past, and — when optimistic — often imagine the future as the wise application of the moral of this fable.



Moana, the future tribal chief in *Moana* (2016)

So, the narrative structure does provide an opportunity for the film to incorporate an environmental theme, and the necessary motifs are also present to create such a subject. However, the potential environmental references are not articulated enough, they remain preconscious, which leaves the environmental message unexposed.

An example for this pattern is the motif of the deity in the story who is mentioned in the reviews as an "enormous monster" or "the creator of the universe", who plays a crucial role in the narrative, since her heart had been stolen by the male half-god Maui leading to the rise and spread of darkness until Moana's island itself is threatened, and their most important source of food, fishes are gone. At times the reviews call this deity the "ancient Mother", but when she is mentioned, her femaleness seems to be interesting only because "robbing her heart" is ambiguous enough to be funny, since the indicated love affair has no role in the story. Even if the creator's being female is emphasized, on the surface it only highlights her connection with the protagonist girl, helping the viewers to focus on Moana's achievement, this way contributing to the film's renown feminist tendency to acknowledge the abilities of women and their sometimes unacknowledged role in history.

But the femaleness of Te-fiti, the aforementioned deity is not significant only because it can accentuate the femaleness of the protagonist. The film mentions her not simply as female or creator, but also as Mother Nature. And considering that Mother Nature could symbolize what she is meant to symbolize, that is, Nature itself, than the causal connection between the theft of her heart and the disappearance of fishes seems to build up the context that is in the focus here; in other words, the *theft* from Nature in the narrative is the metaphoric equivalent of the *exploitation* of natural resources. The disappearance of fishes that goes together with the withering of coconut trees — the other main food source in Moana's island — is a logical consequence of the process of this exploitation that has begun in the obscure past. So it can *almost only* be interpreted as an ominous sign of an *ecological collapse*.

Therefore Moana's revolt against the laws of the island is an example for eco-conscioussness that is articulated in opposition to the environmentally destructive habits and beliefs of her contemporaries that may be an allegory of our contemporaries. The aim of her quest is to give back the stolen "heart" to Mother Nature, which can easily be understood as restoring the appropriate relationship between humans and their environment in order to avoid final destruction. The "heart" of Tefiti is the central element in the narrative because it is the key organ in many sensible living organisms, a source that sustains the *circulation of life*. Stealing this heart for humans and giving it back to the female deity it belongs to is therefore a clever metaphor for the shift from anthropocentric to ecocentric attitude towards Nature that is necessary to create a sustainable lifestyle. Maui, aided by gods, stole the heart of Te-fiti to "help" humankind, cherishing the hope that their life would turn for the better this way; therefore this narcissistic and not too bright character is motivated by the same kind of ambition and is characterized by the same blindness that is usually attributed to mankind in effecting the Anthropocene, that is, the present troublesome state of the planet.

Recognizing the inappropriateness of the view that posits humans and nature as opposites is a key aspect of the narrative itself: this is made obvious by Moana's realization that the main enemy who seems to hinder her quest — the lava monster that personifies volcanic eruptions — is a manifestation of the *heartless* Mother Nature herself. Does this suggest that the natural phenomena considered negative are the consequences of manmade changes in the system of nature?

When Moana restores the heart — a metaphor of the conservation and preservation of natural resources —, the planet becomes a smiling and nurturing mother again. However, it is beyond doubt that among the many natural phenomena with negative effects on humans — smog, extreme cold or heat, drought, the rise of water-levels, tsunamis, hurricanes, etc. — it is volcanic eruptions that can be *the least* deemed to be the effect of the Anthropocene. Representing Volcano and the happy island as identical may imply a mythical-metaphorical understanding of the fact that many of the Polynesian islands rose from the ocean due to volcanic activities in the deep, and that is why their soil is so fertile (see Diamond 2007, 94–95).

Indeed, what would be the point of representing the simple and happy Polynesian people — whom we know from the story of the Bounty or from advertisement of Hawaii tourism — as the anti-heroes of an *ecological Fall and Redemption*? As opposed to the ancestors of the viewers of the film who invented steel weapons and the steam engine, what responsibility the people of Moana should bear for the present state of affairs when we see them tending their small self-sustaining agriculture with stone-age tools, usually portrayed as the example of a harmonic coexistence with Nature? This is the point where a light but important thread connects the film to the context of cultural history with special ecological relevance.

In the taboo broken by Moana's act of sailing off, some commentators recognize the historical paradox that in the age of Western geographical discoveries of Polynesia the local "people who used to be renowned for their naval arts" knew only the most basic elements of seafaring near the coast. The setback of Polynesian sailing was in close connection with local ecology, and in some cases with a catastrophe that not only seems to be afflicting the fictive island of Moana, but that fell on several actually existing islands too. As William Crosby and Jared Diamond argue, in the oceanic territory of smaller and bigger islands filled with people by the second half of the first millennium, sailing provided not only food, but also new places for living in case of overpopulation.

. The new habitats should also provide wood for building ships for fishing and for transportation in case of a further population boost. When the community made wrong decisions — for example they used the wood faster than it grew — they could not build enough ships to satisfy the needs of the hungry population, nor could they search for other places of residence. When people used up all the resources on an island to a great distance from the rest of the world, they could not turn to other, more fertile territories and find new resources, which in South-East Polynesia led to the fall of civilizations and nearly to the extinction of earlier, blooming settlements. Among those islands the Easter Island is the most famous example of such an ecological devastation. The voyage to Easter Island from the nearest Polynesian island to the west took several days. Therefore, in the 18<sup>th</sup> century, the Western discoverers of the Easter Island

were surprised to find that the islanders' only watercraft were small and leaky canoes, no more than 10 feet long, capable of holding only one or at most two people. [...] How could a band of human colonists plus their crops, chickens, and drinking water have survived a two-and-a-half-week sea journey in such watercraft? Like all subsequent visitors, including me, Roggeveen was puzzled to understand how the islanders had erected their statues. No matter what had been the exact method by which the islanders raised the statues, they needed heavy timber and strong ropes made from big trees, as Roggeveen realized. Yet the Easter Island that he viewed was a wasteland with not a single tree or bush over 10 feet tall. [...] What had happened to all the former trees that must have stood there? (Diamond 2005, 81)

As Diamond summarizes the case:

The overall picture for Easter is the most extreme example of forest destruction in the Pacific, and among the most extreme in the world: the whole forest gone, and all of its tree species extinct. Immediate consequences for the islanders were losses of raw materials, losses of wild-caught foods, and decreased crop yields. [...] Lack of large timber and rope brought an end to the transport and erection of statues, and also to the construction of seagoing canoes. (2005, 107)

The fact that on the island of Moana the art of sailing had been forgotten and there are signs of an approaching ecological crisis powerfully evokes this "background" history. The rising cult of sailing at the end of the film is an embarrassing moment though. Sailing — when it does not function as a means of contact between settlements — is a technological tool to extend an unsustainable economy to new territories, which means it can hardly be the most appropriate tool for a quest that aims at restoring the harmony between Humans and Nature. Even if it would be restored somehow, the luxury of long-distance sailing (or the resources necessary for it) would be considered unnecessary waste that threatens sustainability and — in this case — would be banned for *this* reason. The film this way is just as contradictory as Willoquet-Maricondi claims in the case of popular films. It seems to idealize native lifestyles and mythologies for their harmony with nature, while the main object of its idealization, and also the tool for saving the Earth — the ship in the story represents the most unsustainable habits that such cultures may entertain.

Notwithstanding all these may help changing the viewer's general attitude to the planet, which is also supported by the film's feminist, or rather postfeminist point of view. I say postfeminist because in the film Moana does not revolt against some reductive roles or the oppression of women as it usually happens in feminist films.



An internet meme linking the ancient idea of Mother Earth to modern envirinmentalism.

In the diegetic world of the movie such oppression or reductive roles do not exist, at least not in relation to gender: the girl is taught to be the leader of the community. The revolt against the taboo shows the social commitments of Moana — she sails off not because she is looking for adventure but to save her people —, but it also represents the tendency of the young to question old and meaningless rules, which surely impress the young audience. Through the gender of Moana — as indirectly as other allusions to ecology at work — the importance of girls is presented as equal to that of boys. But why is it important to point out here? Because it directly influences the ecological theme through the representation of Mother Nature as a woman, who at one point of the film appears as a giant version of Moana herself. The figure who mediates between the metaphysical, spiritual sphere and the material world in the film is also female, represented by the grandmother of Moana. It is therefore *women* who sustain this world in which Mother Nature is the most important female character, whose "oppression" therefore is the greatest possible abuse that may lead to nothing but decay. And through the conscious or subconscious understanding of her being a *personification*, the same applies to the natural environment as well.

Since it is so "natural" that Moana can be the leader of a community — the privilege of men in patriarchal societies, historically in Polynesia, too — on the basis of the parallel between Moana and Te-fiti Nature should have the same privilege. This narrative logic makes it necessary that Mother Nature, who had been forced into a semi-dead and inert state by the male Maui — a phenomenon that may be easily compared not only to the state of Nature in Western philosophy and sciences throughout the last couple of centuries, but also to the position of women in the same period — should be freed and valued. That is why the narrative must reveal that her passivity is not a peaceful and desirable state; her inferiority to (male) culture is only an illusion, her exploitation, that is, the male takeover to oppress the female principle, is the very cause of chaos in the world. All these could easily be labelled as ecofeminism, although the film does not say that the long rule of men in human societies is analogous with the oppression of Nature and so all this should stop. But the cast of the characters suggests that the equality of genders implies the fate of environmental dominance model. In the narrative solution the emancipation of Nature is associated with the emancipation of women, implying not the urgency of both, but the urgency of the former following the *precedence* of the latter, which at least in theory may be self-evident for the youngest Western viewers of the film. This strategy ensures that the film would not evoke the Stubborn Child's resistance from children, since the rights it proposes to vindicate are made to harmonize with the *prejudices* of this audience. From this respect it may be also effective that Moana is presented as repudiating the parental commands and habits when she decides to "save the Earth". In the story of The 5<sup>th</sup> Wave the children must also get on without the help of their parents, while the ruling adults are exposed as the "alien" enemy who want to destroy the earth, which clearly evokes the problem of previous generations destroying the ecosystem that is the "inheritance" of their future descendants. This rebellious message serves both to elicit sympathy from the young viewers and to communicate the (real) need for change.

The way the above films communicate their messages is oddly selfreflexive in some scenes. In Moana, the way the viewer is required to decode the environmental message is strangely similar to the way Moana understands that she is the "chosen one". In The 5<sup>th</sup> Wave, members of the rising Resistance must apply an unconventional logic and interpret certain signs to recognize the aliens and realize what their intensions are. What I call "biomovie" usually works exactly the same suggestions, cultural signs and codes of biomovies way: the intertextually help and direct the viewer to create a connection between the diegetic and the extradiegetic world in ways that are different from the "manifest content". These films encourage the viewers to see the dilemmas and adventures of the heroes not as the representation of their own identity problems and not as the hyperbolic mirror image of their hoped-for importance, exactly as the Bettelheimian readers of a tale are supposed to do. Nevertheless, they are also discouraged to see these usually redemptive deeds as the "fictive" consequences of a closed, non-existent world that has no relevance to our real one. They are encouraged to interpret the events as simulation of efforts that should be done to save, or rather to sustain their actual world. In other words, they are "referential".

Opposed to ecofilms and environmental films that are also obviously "referential", these movies do not document, explain and preach, neither do they mention the need for environmental consciousness, or at least this intension is not put in the center of the story. They do not try to evoke sympathy for the environmental movement by presenting it as the conviction of their heroes. Environmental consciousness is often vague or seems to be lacking. Indeed, Sean Cubitt says that eco-cinemacriticism "need[s] to understand the functioning of ecocriticism beyond the obviously eco-themed: to use its power to explain the absence of environmental issues" (Cubitt 2013, 279.) But as the above analyses and the following ones try to show, such a lack may be not the consequence of the lack of information, disinterest or denial. It can be the manifestation of rhetorical strategies that avoid forced recruitment in order to fend off resistance as a possible side effect.

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