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Prophesying the End of Human Time: Eco-Anxiety and Regress in J. G. Ballard's Short Fiction

# ABSTRACT

Despite being written half a century before the term "eco-anxiety" (Gifford and Gifford) was coined, J. G. Ballard's disaster fictions can be read in the context of the social psychodynamics of climate change. My aim in this article is to demonstrate that in J. G. Ballard's fiction, climate catastrophes and the devastation of nature cause the characters to realize that the Earth is not going to be able to sustain human life much longer, and their psychological reaction is either subdued anger or strange numbness. In order to do this, I analyze two short stories by Ballard: "Deep End" (1961) and "Low-Flying Aircraft" (1975) and show how their protagonists are affected by the landscape they inhabit: de-populated wastelands whose wildlife is extinct or mutated. I argue that it is their awareness that human civilization on earth is coming to its end that results in the state of mind akin to eco-anxiety. The characters are immersed in their own inner space and in these stories clocks mark not the passage from past to future but a countdown to the end.

**Keywords:** eco-anxiety, J. G. Ballard, climate fiction, science fiction, inner space.

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J. G. Ballard went quite a long way in terms of recognition—from the relatively marginal position of eccentric science fiction author in the 1960s to a contemporary British "great" in the 1990s. It was the artistic and commercial success of his semi-autobiographical novel *Empire of the Sun* (1984) that established his position as an important contemporary novelist and resulted in the dissemination of certain critical clichés. Specifically, his name began to be associated with war fiction and autobiography, and the fantastic catastrophic scenarios he had been creating for years began to be interpreted as projections of his wartime traumas (Luckhurst; Gasiorek; Baxter; Francis). Yet, as his early disaster fictions are often concerned with catastrophes related to abrupt changes in the climate—both natural and anthropogenic—this part of his *oeuvre* is being rediscovered today by critics interested in climate fiction (cli-fi).

J. G. Ballard's disaster fiction, written half a century before the term "eco-anxiety" (Gifford and Gifford) was coined, can be read as profound studies of climate-related mental conditions. The first to talk about eco-anxiety were journalists: in 2008 columnist Katherine Ellison wrote a text for *Frontiers in Ecology and the Environment* where she interviewed a number of therapists who claimed that eco-anxiety (or "eco-worry") was a legitimate source of distress. Then, in 2016 climate reporter Tyler Hamilton published "Climate Change Is Wreaking Havoc on Our Mental Health, Experts Say," which was based on the research of the American Psychological Association (APA).

More academic publications followed: Robert Gifford, a University of Victoria psychology professor, and a member of the American Psychological Association, wrote (with Eva Gifford) a research paper entitled "The Largely Unacknowledged Impact of Climate Change on Mental Health," where they claim that feeling powerless in the face of irreversible climate change is a serious hazard to public's mental condition:

Climate change can affect mental health even before its actual appearance. Distress related to impending environmental change, such as habitual ecological worrying and "eco-anxiety," has been increasingly noted. . . . many people are often unconsciously anxious, unaware of just how concerned they truly are about impending environmental changes. This lack of awareness often slowly diminishes, to be replaced by increasingly severe anxiety about how dire the situation has become. (292)

Interestingly, sixty years earlier, J.G. Ballard was interested in such "unconsciously anxious" characters who react to the changing environment by retreating to their "inner space" (Ballard, *A User's Guide* 197). In 1962 he

claimed that every apparently objective phenomenon, such as time, should be described as "what it is, one of the perspectives of the personality" (Ballard, A User's Guide 198), thus making all reality subjective. In "Fatally Confused" (2012) Michelle Bastian, who is interested in how people perceive time in the age of climate change, discusses precisely such a subjective temporal dimension of eco-anxiety. She contrasts "the wide array of calendars, schedules, timetables, and so on, that arise from social institutions, logistical systems, personal life, and communications systems," with the feeling that "far from being able to coordinate our actions with the significant changes our world is currently undergoing, we are increasingly out of synch" (24). Ballard's artistic intuitions are very similar.

In my opinion, his concentration on the human mind's suffering from an awareness that nature is slowly dying is Ballard's insightful contribution to both disaster fiction and the contemporary humanities in general. My aim in this article is to show that J. G. Ballard's climate catastrophes make the characters mentally suffer as they are traumatized by the fact that the Earth is not going to be able to sustain human life much longer. In his fiction the countdown of the time we have on the planet has already begun. To do this, I analyze two short stories by Ballard—"Deep End" (1961) and "Low-Flying Aircraft" (1975)—and show how their protagonists are affected by the landscape they inhabit: de-populated wastelands whose wildlife is extinct or has mutated. It is the characters' awareness that human civilization on earth is dying that causes their anxiety or makes them numb and withdrawn. Thus, they sense the approaching end of measurable time conceived as a linear progression of human culture and, allegorically, for them clocks show not the passage from the past to the future but from the present to the end. In "Deep End" and "Low-Flying Aircraft" two thought-provoking stories which are rarely discussed by Ballard's critics—it is the environmental changes that affect the inner space of the protagonists, and this process is described in a detached, scientific way.

### J. G. BALLARD AND CLI-FI

The idea that human-made climate change might lead to the demise of the human race is a well-known science fiction scenario. As early as 1934, in a disaster novel entitled *The Strange Invaders*, D. W. Alun Llewellyn describes earth in the clutches of a new Ice Age, in which humankind has retrogressed as a result of bloody wars and the habitable area is gradually decreasing: "*The Strange Invaders* looks at this planet and the ecological change upon it as a result of Man's abandonment of Mind as a motive force

of his evolution" (Smith 340-41). Two decades later, during World War II, H. F. Heard wrote "The Great Fog." In this short story, careless human experiments put an end to the world as we know it. The army biologists try to produce an edible mould to be used as an unlimited source of food for the army since it grows everywhere and is able to increase humidity. Yet the unstoppable spreading of the mould changes the climate forever: the earth is covered with a dense fog that makes it impossible to see at a distance, travel, make fire, weld metals or store food. The human race does survive, but it devolves and is reduced to living without the advantages of technology. In the following years, more works of environmental science fiction

were created, but it was not until the 1960s that J. G. Ballard published his climate disaster novels, among them The Drowned World, which today

flood most of the continents and change habitable areas into over-heated archipelagos; in *The Crystal World*, a strange saturation of matter makes the planet hostile to biological life; and in The Drought, human-made pollution of the oceans stops vaporization and results in the cessation of rains. This list only includes novels; simultaneously, Ballard wrote short fiction in which human psychological reactions to climate disasters were scrutinized. All his protagonists face the aftermath of climatic devastation. As a result, they "traverse liminal states, often as psychological as physical, in which civilization recedes to the status of memory, and existence comes to be dominated and defined by the environment and its monothematic transformation" (Clarke 7). Critics such as Jim Clarke, Rachele Dini and Adrian Tait emphasize that Ballard wrote his cli-fi in the decades when intellectuals were first realizing that the biosphere had been being systematically damaged for years—at least since the Industrial Revolution and that the changes might prove irreversible and lethal. Clarke writes in "Reading Climate Change in J. G. Ballard": "[b]efore there was climate change, there was nonetheless climate fiction" (7). Rachele Dini gives her analysis of waste and recycling in Ballard's texts a telling title: "'Resurrected from its Own Sewers': Waste, Landscape, and the Environment in J. G. Ballard's 1960s Climate Fiction." Adrian Tait, in "Nature Reclaims

is considered the precursor of the new branch of environmental science fiction called cli-fi. The term "cli-fi" was coined by journalist Dan Bloom in 2011 and has been gaining popularity ever since. In "Fantastic Futures? Cli-Fi, Climate Justice, and Queer Futurity," Rebecca Evans notices that "cli-fi, defined as literary works that describe climate change, existed before it was named" (96). This last remark is relevant for the discussion of Ballard's 1960s climate disaster novels: in A Wind from Nowhere, the Earth is ravaged and human civilization is destroyed by a gigantic, unstoppable global hurricane; in *The Drowned World*, the melting icebergs

Her Own: J. G. Ballard's *The Drowned World*," juxtaposes passages taken from *The Drowned World* with quotes from Rachel Carson and bulletins relating to recent findings of the Intergovernmental Panel for Climate Change (158). Reading Ballard today, "in the shadow of the still-unfolding event of global warming" (Evans 95), when social psychodynamics in the times of climate change are researched academically (Wasdell; Gifford and Gifford), Ballard's climate disaster fiction strikes these critics as profound psychological studies of people awaiting acute trauma. His characters experience "surges" of anxiety (Taylor), or, alone in the depopulated world, they feel a strange numbness.

Yet, towards the end of his writing career, Ballard published his late novel, Rushing to Paradise (1994) in which he overtly attacks and critiques a fictional cult of environmentalists, if not their agenda. Rushing to Paradise is a story of the French Pacific island of Saint Esprit, which was to become a site of nuclear tests but, thanks to an environmentalist campaign led by the charismatic and unpredictable Dr. Barbara, has been turned instead into a sanctuary for endangered species. The few volunteers who stay with her on the island to tend the animals are forced to live through the traumatic experience of taking part in the cruel sociological experiment conducted by this demented woman. The book, narrated from the point of view of one of the volunteers, a teenage boy, is an intertextual echo of William Golding's Lord of the Flies. Their stay on the island becomes an examination of the latent parts of human nature and tests the endurance of the psyche faced with the danger of such radical ideologies as pacifism, environmentalism and feminism in their most militant faces. Thus, trying to retrospectively code Ballard's fiction as cli-fi is an oversimplification though his early disaster novels link to the theme of environmental catastrophe; yet Ballard's protagonists are unsure whether to resist disaster at all, and they often unconsciously long to perish.

Whether it makes sense to call Ballard's early fiction cli-fi is currently being discussed, and there are also critics who are reluctant to call him a forefather of the contemporary literature about climate change because of the anti-environmentalist novel discussed above. Yet Ballard's generation knew that increasing pollution was dangerous and writing about climate catastrophes before global warming became a widely discussed issue was less surprising than it might seem today. Moreover, most of the climate catastrophes he describes are not anthropogenic and Ballard's interest in climate is less significant than his fascination with surrealism and trauma. In one of the first important critical assessments of his fiction, *Earth is the Alien Planet: J. G. Ballard's Four-Dimensional Nightmare* (1979), David Pringle writes: "[Ballard's] favourite device was a biospheric disaster: a world of the near future changed into a series of surrealistic

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landscapes" (9). Therefore, Ballard is primarily interested in the minds of those characters who are affected by "surrealistic" climate change and who are aware that the earth is incapable of sustaining human life much longer. Similarly, in 1997, in a classic of Ballardian criticism, "The Angle Between Two Walls": The Fiction of J. G. Ballard, Roger Luckhurst observes that Ballard's disaster fictions "abandon both the concern with representing the path of the catastrophe... and any thought of a circular return to the reinvented social world. They take place between catastrophes, in the space after the initial catastrophe and the 'catastrophe' which follows, death" (38, italics in the original). For these critics Ballard's interest in climate issues is just a pretext to study the inner space of his characters. In 1962 J. G. Ballard published his artistic manifesto, the famous article "Which Way to Inner Space," where he claims that ambitious science fiction should abandon repetitive space stories and investigate the inner space of the human mind. In explaining his ideas he writes:

SF has a continuing and expanding role as an imaginative interpreter of the future. . . . The biggest developments of the immediate future will take place, not on the Moon or Mars, but on Earth, and it is *inner* space, not outer, that needs to be explored. The only truly alien planet is Earth. In the past the scientific bias of SF has been towards the physical sciences—rocketry, electronics, cybernetics—and the emphasis should switch to the biological sciences. (Ballard, *A User's Guide* 197)

The most important narrative technique should be psychological speculation. "I'd like to see more psycho-literary ideas, more metabiological and meta-chemical concepts, private time-systems, synthetic psychologies and space-times" (197), he concludes. I would like to propose that the perception of time in the age of climate change might be considered such a "psycho-literary" idea.

### J. G. BALLARD'S PROTAGONISTS ON THE DYING PLANET

The persistent thought that human time, and the linear time of Western civilization's progress, is coming to an end causes Ballardian protagonists to realize that they live between catastrophes: the irreparable destruction of the biosphere and the moment of the end of all human life on earth. This is the case of the protagonists of both "Deep End" and "Low-Flying Aircraft": their distress is related to the environmental change they see around them. Ballard's protagonists tend to contrast the hectic urban modern life, which is all about hurrying and multitasking, with the pastoral

timelessness of nature—a "Wordsworthian nostalgia" (Anderson 43). The moment nature visibly changes—temperatures rise, ice caps melt, animals stop migrating—anxiety attacks them. Though nature is not, and has never been, unchanging, they are conditioned to believe it should be so, and experience distress.

"Deep End" is a story of Holliday, a young boy who lives on what used to be the Atlantic seafloor but is now a salty desert interspersed with mutated kelp fields. "The frantic mining of the oceans in the previous century to provide the oxygen for the atmospheres of the new planets" (Ballard, "Deep End" 239) resulted in the destruction of the seas and nearly the entire human race has migrated to other places in the Solar System; only a few elderly people decided to stay and live out their last days near lake Atlantic, surrounded by the empty launching platforms. Holliday suffers from chronic depression and vet is reluctant to leave; some compulsion whose nature escapes him forces him to stay. In the story, we see how the accidental discovery of a live dogfish in a puddle of saline water makes him believe that he has taken the right decision and that zoological life on earth is going to be rekindled. He becomes a self-appointed guardian of the planet, but when he sees the children of the emigrants waiting for their departure for Mars kill the fish for sport the following day, he understands that nature is doomed. Holliday's trauma is uncannily similar to the feelings of an "absence of hope" (Hamilton) which is characteristic of the victims of eco-anxiety.

Similar, though less acute, feelings are shared by the protagonist of "Low-Flying Aircraft," a youngish man named Forrester living in a depopulated Europe. Together with his wife, he is waiting for their baby to be born in an empty hotel in a deserted sea resort with only a few elderly people around. The continually increasing levels of radiation are slowly changing the planet: the sunshine is getting brighter and brighter, and although the survivors are physically fit, they suffer anxiety and trauma. For tens of years, only one in about a thousand pregnancies ends happily. Most infants are born terribly disfigured and, as they are considered unable to survive, they are put to death painlessly. After many such births, the Forresters are strangely convinced that this time the baby will be healthy. This does not happen, yet Forrester accidentally finds out that the mutated infants—both human and mammalian—are nature's attempts to prepare the fauna for some over-heated ultravioletlit future of the planet. Feeling strangely detached, he decides to give his newly born son to a mutated young woman who lives in the mountains. Forrester comes to believe that there is probably going to be some future for a post-human species that is adapted to the new environment, but human time is definitely coming to its end. For generations people have

been killing their mutated babies who in fact are not disfigured but more evolved than their parents. Ironically, only these babies deemed retarded and disfigured have the best chance of survival.

Both narratives tell a similar story of a mixture of hope and despair and—although written in the third person singular—they are focalized exclusively by the narrators. In both, Ballard skilfully uses free indirect discourse, which allows him to create an apparently objective picture of the deteriorating biosphere and the dilapidated remnants of human civilization while suggesting that this is how the narrators see their worlds. What the narrators have in common is their comparative youth in an ageing world, the anxiety with which they watch the decline of nature and of the human species, and their readiness to draw conclusions that other characters prefer not to see: specifically, that our time on earth is coming to its inevitable end as either we are going to destroy nature and leave, or nature is going to irreversibly change us. Significantly, the process is inevitable: it is in the nature of civilizations and species to end. Humans use up the resources of the planet preparing for the final departure, or biological life on earth mutates because the planet enters a new stage of its existence. It is not due to anyone's choice but because it is the way of the universe. Human linear time is contrasted with millennia-long cycles of cosmic time, which is non-linear.

Moreover, the decay of the biosphere and the destruction of the countryside, which are described in detail in both stories, serve as correlatives of the characters' mental states. The salt fields of mutated kelp, "their genetic shifts accelerated by the radio-phosphors" (Ballard, "Deep End" 237), the oppressive heat, the seabed of old buried under endless salt heaps and the deserted launching platforms make Holliday compare the shores of lake Atlantic to "a white lunar garden" (Ballard, "Deep End" 237). Though he feels the strong need to stay on earth, the planet itself grows alien before his eyes. For Forrester, the empty resort town with its abandoned airfields, promenades and pleasure domes bathed in overbright unnatural light are just like the surreal landscapes on the canvases at the Dali Museum in Figueras, which are peopled with "the surrealist's flaccid embryos and anatomical monstrosities" (Ballard, "Low-Flying Aircraft" 830). Dali's paintings reflect how Forrester sees the depopulated Mediterranean: deformed pregnancies and herds of hundreds of shaggyhaired bullocks, "sightless creature[s], clearly mutant[s]" high in the mountains. The animals, as he later guesses, have adapted to see ultra-violet.

Both narrators project their anxiety onto very white, very bright and very hot landscapes, and both are keen observers of mutations who realize that the biosphere is rapidly changing into an environment unable to host human life. This impression is reflected in numerous passages describing

the depopulation of the planet. Holliday feels like "a Robinson Crusoe in reverse," and knows that the people urging him to emigrate are right when they say: "You are the last man on the beach who decides to stay behind when everybody else has left. Maybe you are a poet and dreamer, but don't you realize that those two species are extinct now?" (Ballard, "Deep End" 238). He meets very few people even though all who have left live close together since there is only a narrow layer of oxygen-containing air, and to survive one must stick to the lowest plains of what used to be an ocean bed. The pervasive feeling of loneliness is increased by the fact that entire zoological classes of fauna are extinct and for ten years no one has seen any larger wildlife.

Similarly, the Forresters have been living in "an almost depopulated world" (Ballard, "Low-Flying Aircraft" 829) for as long as they can remember. For them, a town inhabited by fifteen or twenty people is quite big, yet Forrester vaguely remembers that in his childhood he used to see more than a few holidaymakers on the Mediterranean beaches. He works in Geneva making inventories of the huge stockpiles of foodstuffs and medicines left from the old days: they are going to last for decades keeping the ever-dwindling population alive. Significantly, he notices that "most of Europe's urban areas were deserted altogether, including surprisingly, some of its great cathedral cities—Chartres, Cologne and Canterbury" (Ballard, "Low-Flying Aircraft" 838). Religion can give people no consolation, and they do not despair but silently die away; he himself calmly accepts "the terrifying logic of this reductive nightmare" (Ballard, "Low-Flying Aircraft" 832), and compares people "closing down the western hemisphere" to "a group of circus workers dismantling their tents and killing their animals at the season's end" (833). Immersed in his inner space he feels numb rather than desperate.

Holliday in "Deep End" and Forrester in "Low-Flying Aircraft" are much younger than the people around them. In the former story, all of Holliday's peers have already departed for Mars or will be departing in a couple of days, and the few people who decide to stay are too sick (his best friend, a retired marine biologist who has only one lung) or too old to leave the planet. During an interview with an emigration officer, the boy is warned: "[T]he average age of the settlement is over sixty. In ten years, you and Granger may well be the only two left here, and if that lung of his goes you'll be on your own" (Ballard, "Deep End" 236). In "Low-Flying Aircraft," both the Forresters are much younger than any other non-mutated human being. We learn that they were born themselves in a period when healthy infants were a rarity and, in their lifetime, there has never been much hope for "rekindling... fertility" (Ballard, "Low-Flying Aircraft" 834).

catastrophe, the ultimate end of human life on earth, and, despite all their efforts to remain hopeful, they know there is no hope. Finding the healthy dogfish that has adapted to salty waters, Holliday cheerfully exclaims: "Earth isn't dead and exhausted after all. We can breed new forms of life, a completely new biological kingdom" (Ballard, "Deep End" 241) only to soon find the fish being killed. This act of purposeless human violence is confirmation of his innermost belief that the cosmic countdown cannot be stopped, and the human race must perish. His friend's weak attempt at consolation, "it's not the end of the world," enrages him (Ballard, "Deep End" 243); it is the ultimate end of *his* world. Empathy with the zoological kingdom is shown as a strong instinctive force similar to a contemporary person's strange distress when reading about the disappearance of coral reefs he or she has never seen, as the boy feels involved in the mass extinction, and the death of the zoological species wreaks havoc on his mental well-being. Forrester's reaction to trauma is numbness: he follows an inner impulse to save his mutated son, but he does not try to find the colony of post-human children—they belong to another race. The mutated girl, his real kin, should nurse the mutated boy. Forrester's world is doomed and human time is ending:

Most importantly, both protagonists unconsciously wait for the final

Isn't it obvious that we were intended to embark on a huge replacement program, though sadly the people we are replacing turn out to be ourselves. Our job is simply to repopulate the world with our successors. As for our need to be alone, this intense enjoyment of our own company, and the absence of any sense of despair, I suppose they are all nature's way of saying goodbye. (Ballard, "Low-Flying Aircraft" 839)

Ballard's protagonist is unconsciously aware that human destination is extinction and his reaction is "the absence of any sense of despair," or rather, a bizarre mixture of hope and despair. Instead of mourning or trying to fight the inevitable he willingly embraces disaster, which is strangely comforting for him as it resonates with scenarios encoded within his inner mind. In this unhappy, disintegrating world Holliday and Forrester sense that the time of the human race is approaching its end.

## COUNTDOWN AND THE PRE-TRAUMATIC STRESS DISORDER

Interestingly, in both "Deep End" and "Low-Flying Aircraft," the protagonists realize that they live at the end of the linear, western time of progressing history, at a point of regress, when chronometers melt away,

just like in the Dali paintings Forrester so adores. Young Holliday is told by his friends that "Earth is dead and buried. Past, present and future no longer exist here" (Ballard, "Deep End" 238). He knows that when his last companions, who are much older than he is, die, he is going to be left stranded and alone on the extinct planet, leading a strange existence with no clocks, no changing of the seasons, nothing to wait for. Forrester senses the irrevocable end of human history as we know it and the advent of a new timeless era when new kinds of mammalian species will rule the planet. A mutated girl fascinates him as a denizen of this unknown alien future: her eyes are sheltered from the day's sun, but she is capable of seeing blazing lights that would ruin human eyes. Another character, an elderly doctor, tells him that the girl collects broken clocks which she uses to create surreal collage-like contraptions:

She has a huge collection of watches with luminous dials, hundreds of them, that she's been filching for years from the shops. She's got them all working together but to different times, it's some sort of a gigantic computer. God only knows what overlit world nature is preparing for her, but I suppose we won't be around to see it. (Ballard, "Low-Flying Aircraft" 839)

Listening to the doctor, Forrester feels symbolically excluded from the bizarre future of the post-human, timeless race: the earth is changing and the girl represents an adaptation. Her strange eyes are not a defect but a preparation for the "overlit world" with an increased activity of the sun. In this world the girl (and the mutated children) will thrive and Forrester (and other people) will have to die.

The notion that human time of recorded history, time measured in years and imagined as a line stretching from the past to the future—from the beginning of history to the end of the human world—is only a moment in comparison to the vast temporal domains before and after appeals to the protagonists of both "Deep End" and "Low-Flying Aircraft." Ballard contrasts two aspects of time: one is logical and linear and Newtonian "absolute time that charts a single all-compassing movement from the past to the future" (Bastian, "Inventing Nature" 104); the other is the seeming chaos of apparently random changes in nature.

It is worth remembering that what we consider to be "history" is but a short period of the recorded time before and after which stretch the uncountable millennia of unrecorded geological time. In "How the Concept of Deep Time Is Changing," David Farrier compares the changes in nature induced by humankind to the deep-time processes shaping the planet's biosphere for aeons: "[C]ycles of sedimentation and erosion, a process

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of lifting up then grinding down rocks that required timescales much grander than those of prevailing Biblical narratives" (Farrier). People used to imagine human time as a road leading ahead, but today we tend to think rather in terms of how much time is left for us before the new post-human epoch. Similarly, Michelle Bastian insightfully notices that "standard clock time is not adequate in the context of climate change" ("Fatally Confused" 39). Bastian compares the temporal aspect of current eco-anxiety to what people felt during the Cold War when the Doomsday Clock was created by the Bulletin of the Atomic Scientists in 1947 to indicate the likelihood of nuclear war according to "the commonly understood convention of midnight to signify the end of time" (Bastian, "Fatally Confused" 39). She notices that the minute hand was not signifying quantitative time but the probability of disaster, and the same convention is used today when the Doomsday Clock is used to indicate how probable an end of the world prompted by climate change or biological weapons is. Now the Clock shows that the ecological catastrophe is very near (Bastian, "Fatally Confused" 39). Similarly, Ballard's protagonists know that the human epoch is coming to an end.

In "Low-Flying Aircraft," Ballard suggests that surrealist art anticipates the inevitable demise of human civilization and our psychological reaction to it. Watching the already mentioned Dali paintings of deserted landscapes, which he calls "a collection of newsreels from Hell" (Ballard, "Low-Flying Aircraft" 830), Forrester is fascinated. He clearly appreciates the painter's prophetic instincts, yet it is the remark of another character, an elderly doctor who helps the mutated girl, that tells us what he sees on the canvas: "The ultimate dystopia is the inside of one's own head" (830). Just like Holliday, Forrester internalizes the disaster and suffers not from any acute panic but from an unresolved sense of loss, helplessness, and frustration. "A sharp guess at the future" (830), the doctor comments on Dali's catastrophic paintings when he sees how moved Forrester is by them.

Forrester can hope that his mutated son and other children will one day inherit the earth but he also knows that for him and his wife there is no future. David Wasdell uses the term "collective pre-traumatic-stress disorder" to describe such a feeling—the terror of annihilation which people feel when they know the future is going to be much different than all they know and feel and try to visualize life beyond the transition:

The clinical diagnosis of global psychodynamics would be one of collective post-traumatic stress disorder. But from the fixated position of collective regression to an idealised pre-trauma state, the impingement is projected into future time. In fantasy, the catastrophic impingement has not yet taken place, but is imminent, feared and to

be avoided at all costs. . . . This collective pre-traumatic stress disorder transforms the hope of birth into the terror of annihilation, blocking our capacity to envisage life beyond the transition. Here then lie the roots of the paranoid-schizoid syndrome mobilised collectively in the face of environmental change. Foetal assumptions and primitive defences against peri-natal anxiety become fatal assumptions and dysfunctional dynamics when applied to the reality of contemporary life on island earth. (Wasdell 9)

Thus the "collective post-traumatic-stress disorder" that human populations are known to have suffered after great disasters is slowly being replaced by a "collective pre-traumatic-stress disorder": being traumatized by an unavoidable catastrophe that is yet to come. What people feel is their own powerlessness, an unresolved sense of loss and frustration; they fear an increasingly uncertain global future and the eco-anxiety generated by this fear is not addressed in any constructive manner as it seems that nothing can be done to avert the final catastrophe. The protagonists of "Deep End" and "Low-Flying Aircraft" are in precisely such a situation: awareness that natural cycles have been destroyed and that human time is slowly coming to its end traumatizes them, and they replace measuring the passage of time with a countdown of the remaining days or years of the human species. Their eco-anxiety results from the fact that they know they face years of inevitable regress.

Ballard describes their states of mind by adopting the characters' perspectives: we see the destroyed landscapes through their eyes and their focus on symbols. The fish in "Deep End" and the apparently healthy pregnancy in "Low-Flying Aircraft" represent vain attempts to re-establish the natural order of things of the past. The surrealist paintings of Dali and the mutated girl's shiny collection of useless clocks also symbolize the regress of human time on a dying planet. Both stories are about a lost hope that time can be turned back and that nature can become stable again. Yet in both cases, disasters happen—the fish dies, the world is depopulated—and the protagonists are forced to realize that they are witnessing the end of human time and the end of human civilization.

Recently, eco-anxiety has become a buzzword. People who witness the gradual deterioration of the climate are said to develop an unconscious fear of the future, for example, they get "gripped by a sudden and profound sense of despair over the ecological collapse of coral reefs" and they are overwhelmed by "this surge of anxiety" (Taylor). Ballard's characters react to environmental disaster in a more complex fashion (though Holliday does feel a sudden and profound sense of despair over the death of his fish). They are aware that they live in the last days, and the approaching

end of human time makes them think about the future in terms of a countdown. They feel resignation and retreat to their inner space—thus their stories are the ultimate narratives of regression. Though Ballard's (climate) fiction, written half a century before global warming, is neither the only nor the first attempt to depict climate disasters, he is prophetic in his concentration on how this change affects human minds.

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