



INSTRUCTIONS FOR PREPARATION OF FULL PAPERS

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Abstract

The paper aims at tracking the main strategies to survive a world catastrophe in both science fiction novels and films. The underlying idea is that sci-fi mirrors the change of social attitudes, at different time thresholds, towards the threats affecting mankind. The imagined characters of survivors are observed in order to answer two questions: who is more likely to survive a world catastrophe, if any? What circumstances make survival more probable? The survey covers a set of narratives released from 1945 to present times in the US and UK, featuring three types of world catastrophe: nuclear, biologic and environmental. The survey shows how the authors' imagination about what is expedient to survive the world catastrophe has evolved towards individual instead of either governmental or collective patterns of action, and also towards the capacity of facing unexpected events rather than planning ahead.

Key words: science fiction, survival, catastrophe, nuclear, biological, environmental

1. Introduction

This paper lays at the crossroads of two discourses about the future of mankind. On the one hand, the discourse on Risk Society (Beck 1992; 1999) deals with the radical challenges to our Enlightenment-based modernity stemming from the expectation of human-made, technology-driven, world-scale catastrophes. On the other hand, the discourse of post-apocalyptic narratives, a sub-genre of science fiction, deals with the imaginative consequences of the actual outspread of Armageddon (Paik 2010). The sociology of risk presides over the antecedent side of world catastrophes, while post-apocalyptic science fiction covers the aftermath. However, both discourses address, more or less overtly, the issue of societal guidance under circumstances of ultimate emergency. The conditions of social life are taken to the limit where the last resort for salvation is revealed as the fundamental governing principle (Agamben 2005).

This theoretical and fictional thinking does not only conceive of present and future attitudes about government: it mirrors as well the changes occurred over time. The reflections upon preventing and surviving world catastrophes, in different historical periods, are used here to pattern the evolution of strategic attitudes to secure human life and civilization on earth. In order to outline a provisional genealogy of survival, the paper presents a survey of science fiction novels and movies featuring three typologies

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of world catastrophes: nuclear, biologic and environmental. Two additional selection criteria were adopted:

- (i) the responsibility borne by humans, particularly scientists and political leaders;
- (ii) the release date subsequent to World War II, taken as the conventional beginning of the nuclear arms race and its fear. As a matter of fact, the bulk of the fiction covered was produced in the US and, to a lesser extent, the UK. That choice mainly depends on the greater ease of access to the sources, and by no means on ideological grounds. I gladly admit that a cross-cultural survey would be preferable.

Even though confined to a specific cultural milieu, the survey of science fiction narratives is supposed to test a broader hypothesis. That is that, since 1945, the social consciousness of what is appropriate to survive catastrophic events has evolved towards individual instead of collective (the less governmental) patterns of action. Of course the accounts are largely imaginative. No human has ever survived a world catastrophe hitherto. Such events neither can be tested nor allowed to happen but on imaginative stages. However, the keen social sensibility of sci-fi authors, combined with the talent of pushing hard scientific and technological innovation to its more extreme consequences, provides us with valuable hints to discern the past and present philosophy of survival. Through the looking-glass of science fiction literature we can figure out the relationship between imaginative escapes from the world catastrophe on the one hand, and current ideals of societal guidance on the other.

In the next three sections, the imagined characters of survivors are observed and compared in order to answer the following questions: who is more likely to survive in the event of a world catastrophe, if any? Under what circumstances can survival be achieved with favorable chances? To this end three topics are used to condense the subject-matter, namely the cause behind the catastrophe, its short and long-term consequences and, not least, the survival expedients. Nuclear catastrophes precede biological and environmental ones. Apparently they excited the fervid imagination of science fiction authors in that sequence, not without parallelisms with historically experienced threats.

2. Surviving the nuclear war

The threat can be traced back to the beginning of the nuclear arms race, since the day the Soviet Union conducted its first atomic test on 29 August 1949 (Weart 1988). The end of the United States nuclear monopoly was followed by early preparations to face the consequences of sudden attacks. The booklet *Survival under atomic attack*, released in 1951 by the National Security Resources Board, was complemented with a short homonymous documentary produced by Castle Films. "Let us face without panic the reality of our times: the fact that atom bombs may someday be dropped on our cities" says the speaker in the opening scene. Cities are presented as primary targets. To be prepared is the official survival strategy pursued in the series of short documentaries released by the Federal Civil Defense Administration, often about the testing of atomic bombs and their destructive potential (Jacobs 2010). The production of post-apocalyptic

narratives was intensified after 1949. Prior to WW2 the imagery of global disasters had been either cosmic or natural in origin (Broderick 1993). Then the consequences of the nuclear warfare became an endless source of inspiration. Significantly, narratives do not support the official strategy. With few exceptions, to be prepared is not supposed to increase survival chances. To survey such a multiform set of artworks the focus is put on survivors and their mutual relations. The resulting pattern can be articulated into three main attitudes towards survival, each covering a definite historical period, even though by no means exclusively. The first attitude is confident of the recovery of ordinary life conditions after the nuclear catastrophe. The second is suspicious of governmental and scientific loss of control over abstruse, top-secret defense systems. The third one is resigned to social collapse without redemption, if not to human annihilation.

2.1 Business as usual

Since 1950 until well into the 1960s the aftermaths of the atomic war are imagined as tragedies which nevertheless admit return to ordinary life conditions. *Shadow on the Earth* is the seminal novel published by Judith Merril. It was written in 1950 as a reaction to the arms race. In the same year the plot was adapted as the screenplay of a movie broadcasted in the Motorola TV show. Set in a suburb off New York in the aftermath of an atomic attack, the story depicts a wife with her two daughters facing the unpleasant intrusion of a neighbor serving as emergency squad man. The civil government is replaced by emergency authorities which carry on their own relief plans. The woman desperately tries to keep up appearances.

The partial preservation of the public authority is featured in novels as *The long loud silence* (1952) by Wilson Tucker, where the army sets up a sanitary cordon along the Mississippi river; in *Tomorrow!* (1954) by Philip Wylie; in *Alas, Babylon* (1959) by Pat Frank, where a small town in Florida is ruled by a former reserve officer until the government rescue teams land by helicopter. In *Damnation Alley* (1967), by Roger Zelazny, the United States is replaced by several police states. The movie version of 1977 features a colonel, survived in a military air base, leading a convoy towards the preserved community of Albany. *Malevil*, written by Robert Merle in 1972, tells how a small number of French villagers survive a nuclear blast in a cellar, and are rescued by the army after months.

Common to the latter narratives is the key idea that survival in the short run is not a matter of preparedness. Greater protection is expected from occasional shelters or favorable locations. Early examples of this attitude are found in *Five* (1951), directed by Arch Oboler, where three out of five survivors were casually under metal shelters during the fallout, and one more was on top of the Himalaya. Roger Corman's movie *Day the world ended* (1955) features an old man with his daughter surviving in a valley. The man says he has spent ten years getting ready for the day after. His house is far from large towns and surrounded by cliffs (a topic revived in *Z for Zachariah* (1973) by Robert O'Brien). In both cases no public authority has resisted the attack, as mankind was wiped out. However, the two narratives end up with hope in a new beginning, assigned to young couples in love. The possible recovery of civilization is set in a distant future.

2.2 Underground communities

Between the late 1950s and the mid-1960s a first change occurs in the imagination of nuclear disasters, to cite a seminal essay (Sontag 1967). Large scale preparations are being made by the superpowers up to the point when complexity and risks get out of control, thereby generating anxiety. The so-called mutual assured destruction through massive retaliation leaves little room for survival, at least on the earth's surface. Both the atmosphere and the topsoil would be irremediably contaminated. A number of narratives therefore set their survival scenarios underground.

The forerunner is *Unknown world* (1951), directed by Terry Morse. Dr. Morley is convinced that a nuclear conflict will inevitably occur. He conceives of "a plan to preserve human life on this planet" (min. 4). A team of scientists in an atomic vehicle descends in the bowels of the earth to find out a shelter. However, life underground proves to be impossible. Philip Dick wrote in 1953 his short story *The defenders*, later expanded in a novel. The superpowers survive deep underground while robots are supposed to fight on a devastated land with nuclear weapons. Instead, robots have ceased the war and restored the natural environment.

Early narratives show confidence in the scientific minded capacity, be it human or cybernetic, to redeem the wrongs of political leaders. But this is not how the series goes on. In the novel *Dark universe* (1961), by Daniel Galouye, two tribal groups of survivors live into dark underground galleries, handing down legends of luminous divinities and mortal radiations. The French movie *La jetée* (1962), by Chris Marker, stages a totalitarian government survived in the caves of Paris. Deadly experiments in time travel are made on prisoners to retrieve medical supplies, food and energy from the past. A stubborn policeman is the protagonist of *This is not a test* (1962), written and directed by Frederic Gadette. In the imminence of a nuclear attack he orders a group of civilians to take shelter in a truck container. In the final sequence they all die, whereas the survival of two fugitive young lovers in a nearby silver mine is predicted by the girl's grandfather.

The novel *Red alert* (1958), by Peter George, was satirically brought to the screen by Stanley Kubrick as *Dr. Strangelove, or: how I learned to stop worrying and love the bomb* (1964). This is the quintessential distrust of both governmental and scientific control of nuclear weapons. The US strategic air command is unable to recall the 843rd wing of intercontinental bombers. It was ordered to attack USSR by its insane base commander abusing the Plan R. This is a last resort measure to retaliate under a nuclear attack. If communications are disrupted and no central direction is left, then the Plan R empowers the isolated base commander to act on his own initiative. On the other hand, the Soviets have just activated their ultimate deterrent, a weapon automatically set to poison the atmosphere. The US President is advised to prepare plans for salvation in huge underground shelters.

Significantly, in 1959 Paul Baran joined the RAND corporation in Santa Monica to start his seminal research on a new communication system, a "distributed network that had no vulnerable central point and could rely on redundancy" (Ryan 2010, 14). Once combined

with the interactive computer technology developed by ARPA since 1965, Baran's concept laid down the foundations of the Internet.

2.3 Every man for himself

The novel *On the beach* (1957), written by Nevil Shute, sets the annihilation of life shortly after the nuclear war. A civil government is in charge in Australia only, not targeted by bombs. Its people pretend nothing happened. A submarine, the single remnant of US naval forces, is instructed to explore the northern hemisphere just to discover that lethal radiations are moving southward. By the time everyone becomes ill, blue pills are distributed to die painless. The submarine commander and his lover Moira, the book's main characters, choose to die separately. The man sinks the ship in international waters according to military rules, while she takes a blue pill staring at the scene on a cliff.

The topic of annihilation is paralleled with self-sufficiency. The movie *Panic in year zero!* (1962), directed and interpreted by Ray Milland, is about a family escaping the nuclear destruction of Los Angeles. The husband states his creed in a tense dialogue with his scared wife: "For the next few weeks survival is going to have to be on an individual basis" (min. 14). Later on the man puts it more plainly: "My family must survive!" (min. 25). Accordingly, he is ready to break the law to get what they need: food, gasoline, right of way, security, up until the social order is restored. On the other hand, the wife remains faithful to the traditional customs. The novel *Farnham's freehold* (1964), by Robert Heinlein, is a real cornerstone of survivalism, the radical movement popular in the US since the mid-1960s (Mitchell 2002). Hugh Farnham is a dictatorial person. His family survives in a private fallout shelter under the house. The shelter is transferred by the nuclear blast in a far future, where the environment is not damaged. The small group tries to adapt under Farnham's brutal leadership to the life conditions of pioneers.

The time travel expedient is also found in *Planet of the apes* (1968), directed by Franklin Schaffner. The movie differs from the original novel *La planète des singes* (1963), written by Pierre Boulle, inasmuch the extinction of human civilization on earth is due to nuclear warfare. This is the tragic find of the surviving character: a light-speed spaceship commander. His ship did not crash on a distant planet, but on earth in a distant future, where dumb human savages are hunted by civilized apes. *The Noah* (1975), written and directed by Daniel Bourla, features the sole survivor of a nuclear holocaust. To mitigate his loneliness he creates a whole series of imaginary companions.

In no other period than the 1980s is nuclear extinction so vividly imagined (Dowling 1987). *The day after* (1983), directed by Nicholas Meyer, tells the heroic efforts of a surgeon to keep his hospital operative, only to be overwhelmed by the flow of incurables in despair. No other civil or military authority is left. In *Testament* (1983), directed by Lynne Littman, people survive in a suburb where apparently no damage occurred. However, the radioactive fallout inexorably weakens the local community until the complete end. *Threads* (1984) is a TV movie directed by Mick Jackson. The scenario is about Britain getting involved in nuclear warfare. Careful preparations are made for civil

defense, but command and control links fail after the attack. No return is possible to pre-war conditions. Thirteen years after, survivors are regressed to pure subsistence. *When the wind blows* (1986) is a cartoon movie directed by Jimmy Murakami. An elderly couple in the countryside scrupulously complies with the rules of the official survival booklet. That protects them from the blast. Radioactivity affects the woman first. As the awaited assistance never materializes, the couple quietly succumbs in the sitting-room.

Even when extinction is escaped, no return is supposed to pre-war life conditions. *Doomsday plus twelve* (1984) is a novel written by James Forman. It depicts groups of survivors scattered through an environmentally damaged US twelve years after the war. The same topic is featured in the novels *Warday* (1984) by Whitley Strieber and James Kunetka, and *Children of the dust* (1985) by Louise Lawrence. Limited wars are imagined in the novels *Arc Light* (1994), by Eric Harry, and *Resurrection day* (1999) by Brendan DuBois. Temporary lack of pregnancy is experienced by women in *The last ship* (1988), written by William Brinkley. The crew of two USSR and US naval units wander the oceans in search of a safe place to live. *The postman* (1985), written by David Brin, tells the individual journey of a man delivering letters to small groups of Oregon survivors. Another lone hero travels a devastated country in *The book of Eli* (2010), directed by Albert and Allen Hughes. The man delivers the last Bible to survivors running a printworks and a library in the Alcatraz prison.

3. Surviving the pandemic

The biological threat differs from the nuclear one inasmuch it does not compromise the environment. Humans are infected, livestock may be, but the inanimate world looks the same. It usually keeps the resources to support human life. Therefore total annihilation is not envisaged. On the other hand, pandemics are even more socially disruptive than nuclear warfare. As people get infected, the social collapse is almost inevitable. Quarantine is the obvious governmental measure to halt the spread of the disease. This measure requires abundant confidence in the general interest of society, as the infected are sacrificed for the safety of the healthy population. However, in the set of narratives, survival is more often the result either of natural immunity or self-isolation. In both cases a pattern of distinction from the bulk of society prevails, no matter if it is occult or evident. The surviving individuals are protected by their own diversity.

The survey could be based on the dualism between pandemics contained by enclaves or aroused therein. The first case supports the enforcement of quarantine plans. Any violation of the rules means massive death. On the other hand, biological research undertaken within inaccessible compounds is the source of infection, as lethal viruses always find a way out. Then no containment is possible. Human agglomeration just favors the risk of infection. Indeed, this paper centres on man-made catastrophes (Davis 2002) to reveal the reliance on governmental planning. Therefore the selected narratives stage really often the scenario of pandemics spreading from institutional precincts. A first group of narratives puts some confidence in the remedial power of either scientific research or collective endeavours, while a second more recent group emphasizes survival as a private matter.

3.1 Science-based remedies

The novel *I am legend* (1954), by Richard Matheson, is worth considering here as it has originated three movies in different decades. The novel's protagonist is the sole human to survive a bacterial disease similar to vampirism. His life is devoted to burn corpses, destroy the living deads and find out a vaccine as a self-taught scientist. Meanwhile the infected are attempting to build their own society. The movie *The last man on earth* (1964), directed by Ubaldo Ragona and Sydney Salkow, features the man as a biologist owing his immunity to a bat bite. Lethal to vampires, daylight is the man's only outdoor protection. Day and night are the exclusive domains of each species. In *The omega man* (1971), directed by Boris Sagal, the epidemic is caused by bacteriological warfare. The infected hate the man, a US army scientist carrying a symbolic responsibility for their illness. In *I am legend* (2007), directed by Francis Lawrence, a genetically modified measles virus induces mutations instead of healing cancer. Flashbacks report failing military attempts to quarantine Manhattan. Even though the man is killed by the infected, the vaccine he has isolated is brought by a female character to other survivors in Vermont.

The series of engineered viruses is continued by *The last Canadian* (1974), written by William Heine. The main character takes his wife and sons to northern Québec to survive a deadly airborne epidemic spreading from Colorado. *Survivors* is the title of the television series devised by Terry Nation and broadcast by BBC from 1975 to 1977. Natural immunity preserves small numbers of human beings from the virus accidentally released in a Chinese laboratory. The UK collapses in a very short time. Survivors slowly gather in small rural communities, facing the harshness of a new beginning, and experiencing self-government arrangements. *Plague* (1978), directed by Edward Hunt, features a scientist working to find out a vaccine against the M3 deadly bacterium created in a Canadian laboratory. Another story of dispute between dangerous and beneficial scientific research is staged by *Virus* (1980), directed by Kinji Fukasaku. A biological weapon is developed in a US army laboratory without presidential authorization, then accidentally released. The scientific communities based in the Antarctic circle are preserved because the cold climate inactivate the virus. A peaceful federation is enacted to perpetuate mankind. However reluctantly, women accept to lie with more than one man.

3.2 The selection of the fittest

Increasingly since the late 1970s the reliability of science-based governmental plans deteriorates in science fiction literature. *The stand* (1978), written by Stephen King, is based on the accidental release of a virus in a US military camp. A soldier with his family breaks the quarantine rules to abandon the camp, ignoring they are already infected. Less than 1% of the world population is left alive. Social order is totally disrupted in spite of the martial law enforcement. Two opposing clans of survivors emerge that finally clash to the death.

Scientists gone insane are responsible for biologic catastrophes in the 1980s. In *The quiet earth* (1981), written by Craig Harrison, only a geneticist and a soldier survive in New Zealand a catastrophic event called The Effect. Survival is due to a rare gene. The rest of mankind is simply disappeared. After killing the companion, the scientist gradually recalls his sabotage of a sound-wave equipment for the manipulation of DNA. In *The white plague* (1982), written by Frank Herbert, a molecular biologist is driven insane when his beloved wife and son die under an IRA attack. In revenge he engineers a plague that kills women. The plague is then released in Ireland, England, and Libya. In *Blood music* (1985), written by Greg Bear, a bioengineer invents a computer based on blood cells. To remove the prototype from the laboratory, the man injects it in his own body. The blood cells start multiplying and mutating, until they can assimilate other humans to create a self-conscious meta-organism extended over North America. *12 monkeys* (1995), directed by Terry Gilliam, revives the time travels featured in *La jetée*. A man is sent back in time to investigate on the virus that has contaminated the earth's surface. He dies on the floor of Philadelphia airport while trying to prevent the bioterrorist from boarding with his lethal hand-luggage.

The last decade witnesses the purest individual philosophy of survival. *28 days later* (2002) is a horror movie directed by Danny Boyle. An animalist team steals by night in a laboratory to halt the vivisection of monkeys. The animals are carriers of a rage virus transmissible to humans. The infected are immediately turned into bloodthirsty zombies. 28 days later the protagonist awakes from coma in the hospital. Joining two survivors down the street he cannot figure out what is happened: "What about the government? What did they done? — There is no government — There is always a government. They are in a bunker or a plane" (min. 29). Any attempt to contain the virus failed. The army blockades were overrun. Later on the man is instructed that "plans are pointless" (min. 29) to stay alive. The sequel *28 weeks later* (2007) shows Canary Wharf compounded and recolonized by people from the continent. A woman is found alive whom is a sane carrier of the infection. She is spared because doctors hope to find out a vaccine. Her husband forces the sanitary cordon to visit the woman and gets infected. The virus is back. Trying to protect the sons of the sane carrier, a doctor persuades a helicopter commander to take the boys outside the quarantine zone. This violation spreads the infection across the channel. The moral is not merely that governmental plans have loopholes. It is implied that regards accorded to family ties threaten survival.

Doomsday (2008), directed by Neil Marshall, is exceptional here as the plague is not artificial. It tells the mission of a military squad beyond the wall separating England from Scotland, the source of infection. Survivors have been detected from satellites twenty years after the blockade. Abandoned by the government, they were supposed to be all dead. Perhaps there is a cure for the virus recently found in London. In the highlands a former biologist has become the feudal lord of a community. Questioned about the plague he admits there is no cure. The fittest survived natural selection. Quarantine failure is worsened in *Pandemia* (2006), written by Jonathan Rand and Christopher Knight. Modern transportation systems favour the spread of mutated bird flu from Asia to worldwide scale. The emergency causes the collapse of society.

In *The last man* (2008), a low-budget movie directed by James Arnett, a gang of marauders plunder a Soviet laboratory releasing a strain of small pox. About 98% of the world population is killed. Survivors are affected by various symptoms. Only one man is left immune to fight against cannibals. *Dog eat dog* (2010), written by David Rodger, takes place ten years after a global pandemic. A virus is released by accident in an air cargo crash. Over 70% of the world population is extinct. Apart from a few cities, mankind is preserved on space satellites. Two male characters try to get power and wealth in a world without law and order.

4. Surviving the climate change

The environmental catastrophe brings about either permanent or reversible changes of the natural process supporting human life. Alterations may affect land, water and the atmosphere, namely what humans take for granted. Nature under such conditions is no longer allied to mankind. The lost environmental equilibrium unleashes forces that civilization neither can resist nor control. When civilization bears responsibility for damaging the environment, then reckoning is particularly fierce in the settings of sci-fi literature (Lutz 2001). Unlike nuclear or biologic disasters, the environmental one is more the anonymous by-product of the two-thirds society than of its ruling élites, with the exception of multinational corporations.

The early tendency in the narratives is the already mentioned expectation that return to ordinary life conditions be possible somehow or somewhere. In *Mr Adam* (1946), written by Pat Frank, the world male population becomes sterile after the explosion of a nuclear fission plant in Mississippi. One year after a baby girl is delivered. When the explosion occurred her father — nicknamed Adam — was shielded by lead in the lowest level of a mine. In *The day of Triffids* (1951), written by John Wyndham, two events combine in a world catastrophe. The passage of a comet causes blindness to people staring at it. A species of engineered carnivorous plants, cultivated in order to extract oil, takes advantage of the situation to invade the world. A group of sighted survivors gathers on the Isle of Wight, determined to find a way to destroy the plants. In the 1962 movie version, directed by Steve Sekely and Howard Keel, sea water is lethal for the Triffids. In *The day the Earth caught fire* (1961), directed by Val Guest, simultaneous nuclear bomb tests drive the Earth out of orbit. The climate warming causes water to be severely rationed by governments. Scientists agree on a desperate plan. Several nuclear bombs are detonated in Siberia to bring the planet back to its orbit. In the end scene church bells ring propitiously under clear skies.

The awareness was progressively gained that climate change occurs as a by-product of our development pattern. No accident is required to alter the environment, but the endless consumption of resources (Buell 2003). In *The burning world* (1964), written by James Ballard, water is extremely scarce and valuable. The discharge of industrial waste within the sea resulted in a thin but resilient film formed from a complex of saturated long-chain polymers that prevents evaporation. In *Silent running* (1972), directed by Douglas Trumbull, no vegetable life is left on the earth. The very last specimens are preserved on a spaceship. The resident botanist refuses to obey the destruction order

given by the ship-owner. Having killed his crew mates, the man launches the spared greenhouse beyond the solar system with robots programmed to take care of it. The trade-off between human life and the natural environment is further amplified by extreme political regimes (Yanarella 2011, chapter 2). In *The sheep look up* (1972), written by John Brunner, a corporation-sponsored US government do not take actions to reduce environmental pollution. The urban population health is badly affected. Turmoil and unrest finally break down the social order. In *The bridge* (1973), by Keith Mano, civil war ends up with the coming to power of a radical environmentalist regime. All forms of life are given the same value, including microbes. The council then decrees the extinction of mankind whose breathing destroys innumerable microscopic creatures. In *The handmaid's tale* (1985), written by Margaret Atwood, pollution and chemical waste lead to declining female fertility. A totalitarian theocratic regime replaces the US government. Women are made subservient to men and only concerned with bearing children. In the ironic novel *Fallen angels* (1991), by Larry Niven, Jerry Pournelle and Michael Flynn, a coalition of environmentalist and religious groups takes control of the US, thereby enacting laws against technology to curb global warming. That eventually results in a catastrophic ice age. Another example of political coercion due to environmental reasons is found in *Clade* (2003), written by Mark Budz. When a so-called Ecoocaust raises the sea level, civilization is preserved at the expense of freedom. Transnational political corporations rule the world. Humans are engineered at molecular level so as to survive in specific communities, and not elsewhere.

Industrial pollution is the often implicit backcloth of environmental catastrophes. The reduction of the ozone layer, observed since the late 1970s, is brought to its extreme consequences in *Mindwarp* (1992), directed by Steve Barnett. The earth is reduced to contaminated wasteland with the exception of Inworld, a protected biosphere where humans spend their lives being plunged in a virtual reality. In *Encrypt* (2003), the TV movie directed by Oscar Luis Costo, the earth's surface is ravaged by storms caused by the loss of the ozone layer. A storm catastrophe is imagined in *Mother of storms* (1994), written by John Barnes, after the release of clathrate compounds in a nuclear explosion. In *The day after tomorrow* (2004), directed by Roland Emmerich, global warming melts the polar ice caps then triggering huge hurricanes and a new ice age. The protagonist scientist first advises the President to evacuate the southern US, then faces the polar storm to rescue his son sheltering in a library. In *Category 6: day of destruction* (2004), directed by Dick Lowry, a storm hits Chicago which goes beyond any scale previously used. The population is not alerted because the electrical grid is sabotaged by a security manager to warn against the system vulnerability. Again, the male protagonist is first committed to reactivate the grid, then to save his family.

5. Surviving despite plans

The survey provides enough evidence to support a preliminary genealogy of survival, namely the derivation of current ideals of societal guidance. Of course the narrative mirror distorts and magnifies reality. On the other hand, sci-fi authors are “capable of achieving profound and probing insights into the principal dilemmas of political life” (Paik 2010, 1). The imagined last resort for salvation disguises the supreme guiding principle of society. Extreme emergencies are viewed as metaphors of governmental strategies. This is how the present survey was intended. Its results may not be valid outside the US and UK contexts.

So far as the nuclear catastrophe is concerned, doubts on the governmental protection accorded to citizens emerge right after WW2. Survival is not the outcome of defence plans implemented by public authorities. When partially preserved, authorities are slow to recover. Survivors are better protected either by occasional shelters or good locations. Accordingly all sorts of people escape. A miniature-society is preserved as the best promise that life conditions will get back to normal. Since the 1960s sci-fi authors figure out a different pattern. The nuclear war no longer is taken as a factual statement. Command and control systems of perverse complexity and the doctrines of mutual destruction do not reassure people’s feelings of insecurity. This can be said to be a transition period towards another social attitude. Survivors are supposed to take underground shelter awaiting for the ecosystem to clean up, but the wait can last longer than expected. The point to be made is that not necessarily the anxiety about catastrophic events was the by-product of technological escalation. Whatever it may be, the emerging social attitude reflected in the narratives is based on the belief that human extinction is a real option. Since then a strategy of infinite diversification and self-sufficiency is supported as the best solution to maximise survival chances. The apparent resignation to social collapse on the day after is nothing but the inevitable, sudden transition to an alternative human ethology. Collapse is indeed adaptation to the nuclear aftermath.

The trend is apparent for biologic catastrophes as well. Early narratives are confident in the remedial power of either scientific or governmental endeavours. However, survival often depends on natural immunity and self-isolation. Survivors are shielded by diversity. By the end of 1970s the reliability of science-based governmental plans deteriorates. Plagues are spread from within top-secret compounds instead of being quarantined. The gap widens between dangerous and beneficial scientific research. In recent years survival ends up by reflecting the purest individualism. Even blood ties are sources of danger. Mutual help is based on extraneousness. That goes far beyond the painful alternative faced by Antigone, the Theban heroine imagined by Sophocles in the 5th century BC. She breaks the law of the city to bury her brother’s body, but the defiance of the tyrant’s edict to obey her fraternal piety is blessed in heaven. In the present mythology of survival no established social norm is sacred, be it natural or legal. Pandemics break the society into pieces, and that is the only condition of salvation left to the fittest (or luckiest) among humans.

The fictional environmental catastrophe reveals a rather different pattern, as it is the anonymous by-product of the market forces. Initially the origin of man-made natural disasters is the misuse of technology by governments. The return to ordinary life conditions is hoped somehow or somewhere. Sci-fi authors apparently suppose that no single government can alter the earth's climate permanently. Since the mid-1960s climate change occurs as the outcome of the endless consumption of resources. Consumers are to blame for that together with multinational corporations. No major accident is required but the daily waste disposal to alter the climate without remedy. A trade-off then arises in the narratives between human life on the one hand, and the environment on the other. Mankind is weighed against nature. No matter which is given priority, ultra-governmental powers take over control of life. Be it ecotopian or pro-consumption, civilization is preserved at the expense of freedom. This is another, even if paradoxical, way of feeling uneasy with planning as societal guidance. The perception of global risk shakes the foundations of planning as "the application of a scientific and technical intelligence to organized actions" (Friedmann 1973, 19).

The results of the analysis point out a discontinuity in the imaginative consciousness of world catastrophes. That may be dated between the mid-1960s and the late 1970s, according to different types of apocalypse. Sci-fi authors bend to think survival as an individualized and unorganized undertaking. Compliance with plans is no protection on the day after. The innate talent of facing unexpected events is more helpful than planning ahead. However, this is not to be confused with neo-liberalism. The basic rationale is not to favour the individual in itself, but the human race. The catastrophe takes millions of lives without distinction. Diversification does not reward according to individual merit.

The discontinuity in the imagination of survival can likely be derived from a keener perception of global risks. Science-based modernity is challenged from the inside, as many sci-fi authors are well trained in scientific disciplines. But why risk perception has increased so sharply? Beck suggests that, "in the modernization process, hazards and potential threats have been unleashed to an extent previously unknown" (Beck 1992, 19). A temporal correlation can be observed between alerts reported by media and sci-fi narratives. So do sci-fi authors merely perceive risks? In fact they do more, for post-catastrophic imagination disguises the dominant paradigm of government. Thus the increased risk perception is part and parcel with a paradigm according to which progress is risky. The alarming threats of modernity appear in the light of the individualizing society, namely when people are caught in a set of individualizing governmental technologies in the sense of Foucault.

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