

A Study on Petromodernity, the Socio-cultural Implications of Oil and the Disintegration of Human Behaviour in James Howard Kunstler's *World Made by Hand*

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Abstract

The Postcolonial theorist Dipesh Chakrabarty in his article "The Climate of History: Four Theses" (2009) states, "The mansions of modern freedom stands on the ever-expanding base of fossil fuel use" (208). In the present time human beings are accustomed towards high energy intensive lifestyle which is largely fuelled by the Fossil Fuels and modern 'itions' such as Industrialization, Globalization and all other entities that have made fossil fuels cheap and easily accessible. The research paper gives a brief introduction to the genre Energy Humanities. The paper delineates on how the non-availability of fossil fuels plays a major role in the breakdown of the society as well as explores the behavioural changes experienced among individuals in the post-oil world. The novel chosen for the research discourse is *World Made by Hand* a speculative fiction written by James Howard Kunstler who portrays a dreadful society which functions in the absence of oil. The research also sheds light on how Energy resources act as equilibrium between individual and society.

Key words

Energy Humanities, industrialization, globalization, accessibility, discourse

1. Introduction

Energy Humanities is an emerging field like Digital and Medical Humanities in the literary arena which sheds light on the significance of oil in the society. Most of them usually have a blunt idea about looking at Oil as one of the commodities in which the society functions, but intrinsically it is the one and only commodity which influences all forms of life; it is the artifact of life. Human being's consumption and better existence is directly or indirectly depended on the free supply of oil resources. The multiple ways of oil consumption and its usage renovates the entire face of the



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world. Oil influences culture and society drastically and pulls a society to the modernization path and at the same time, the non-availability of oil resources brings about a greater downfall. One can compare and contrast the difference between the two (before and after oil) dimensions of world. After the advent of oil into the societies it had altered the perceptions and thought process of people and the anatomy of society.

Since time immemorial, human beings used fire for warmth and cooking purpose. After the discovery of fire, human beings have learned to use wood for heating purposes. Later, people shifted from wood to charcoal because of its high production of heat and flames than wood. Reliance on fire moved to wood and charcoal then to coal, and finally in the present age human beings are excessively dependent upon the fossil fuels. In one dimension, it is evident that for effective functioning of human beings, availability of energy resources is very important. According to a research, in a developed nation like US nearly 43% of electricity is generated from coal, because the world is transforming itself into technologically built advanced societies and it is largely fuelled by the non-renewable energy resources like coal, fossil fuels and gas. This fossil fuel usage is not only meant for transportation purposes but components such as tar, asphalt, paraffin, wax, diesel, gasoline, jet fuel, plastic etc., are produced from the petrol. Cement is one of the main components needed for construction works, which is mainly extracted from petrol. Reliance over fossil fuels is increasing day by day, but according to the data provided by International Energy Association, the need for fossil fuels in 2050 will increase up to 60% than the present requirement of the world. On contrary, the limitless consumption of fossil fuels leads to environmental catastrophe such as constant escalation in the global temperature, rise in water levels, and all these perils makes the existence of living organisms in the world under threat. There is an urgent need to rethink about energy consumption to preserve the earth from ecological deterioration. In present times, the energy humanities attempt to create awareness among people to make a conscious energy transition from fossil fuels to some other sustainable form of energy resources. Because constant emission of CO₂ in the atmosphere brings catastrophic changes in the environment and it affects the ecosystems and energy chains in the world. So in order to find a solution for the existing crisis, there is a need emerging to seek for better sustainable energies at the same time a full- fledged transition is required. If human society fails to do so, it will lead to a societal collapse of the whole world. So throughout the world, research schools and thinkers have started to emphasise the importance for considering a world after Oil and derive methods to overcome the existing energy barriers.

2. Thesis Statement

The Human Societies largely depend upon fossil fuels and it influences the lives of people in all aspects. Fossil fuels have the capability to transform a less energy intensive lifestyle to high energy intensive lifestyles and vice versa. The non-availability of fossil fuels brings social, cultural, economic, political as well as aesthetical transitions in the society which can be well understood

with the help of the novel *World Made by Hand*. Furthermore, the non-availability of fossil fuels brings behavioural changes among individuals and it affects the society to a greater extent.

3. After Oil School

After Oil School is a research group initiated in 2013 by the Department of English and Film Studies at the University of Alberta, Canada. This group tries to refashion society from the Hydrocarbon Environment. The premise of the School focuses on restructuring the environment which is largely built upon fossil fuels and it attempts to encode the concept of Energy Transition into the society. They evaluate this energy transition, not as a mere transition for better and sustainable energy resources but as a transition which will affect social, economic, cultural and political aspect of human lives. The schools articulate the concept of Energy Impasse, which means that it is a stagnant phase in which the society fails to find better solutions for existing environment and societal problem which are caused primarily because of the fossil fuels. According to the views of After-oil school, modernists and post-modernists are driven by the economy of fossil fuel. They foresee that the post-modern era will witness an impasse of fossil fuels in which the alternative energy resources such as Nuclear, hydro, solar energies will not meet the high energy demands of the present society.

After Oil School, attempts to provide qualitative research ideas in the different field of knowledge mainly in the streams of Humanities, Arts and Social Sciences regarding energy and its functions. The prominent figure in the school of thought is Imre Szeman, a prominent research fellow in the group who has contributed many books namely *Energy Humanities: An Anthology* with Dominic Boyer, *Petrocultures: Oil, Politics, Culture* with Sheena Wilson and Adam Carlson. He claims that when people think about suitable energy transition for better renewable and sustainable energy, there will be more technological problems because of automobiles, and huge factories. According to him the energy transition, climate change and global warming are fundamentally cultural issues and the people in the world need to reform themselves and the environment for the energy transition.

4. Socio-cultural Implications of Oil and Its Influence on the Lives of People

The novel *World Made by Hand* is a speculative fiction by James Howard Kunstler. The plot travels around the forthcoming Post-Oil World. The novel is set at Union Grove a fictional town in the United States. The people in the Union Grove had isolated themselves from the rest of the US due to Jihadist's nuclear bombings. In the prologue of *World Made by Hand*, the author opens with a dictum "sometime in the non-distant future..." through these words the author cautions his readers by saying that in near future, the world will witness an energy impasse which will lead to the breakdown and disintegration of the societies. According to Kunstler, the world is going to witness a static and inactive state in the near future where the existence of people will become harder. He had also predicted that human beings will lose their modernized path after the end of

fossil fuel era. In the novel, the narrator-protagonist, Robert Earle works as a corporate executive, when the oil gets exhausted; he starts working as a carpenter for his survival. This shows how oil drain has an impact on the career and the lifestyle of human beings. Loren Holder is the friend of Robert Earle, a pastor in First congregational church at Union Grove. Even his wife Jane holds a respectable position in the oil society. Later, they lose their respectable positions in the society and they struggle like the common folks. The novel delineates a Post-Oil World where the society gets dismantled and people start living a distorted life. Through the narration of Robert, one can understand the difficulties and trauma undergone by the people. In the Post-Oil World, the author had predicted that Science and Technology will lose their significance, electricity will be rarely available, and commutation will become a mirage. When this situation prevails, people will drift away from the sophisticated and high energy intensive lifestyles to the primitive form of life, availability of food products will become scarce and people will start to irrigate and cultivate food products.

Basically, fossil fuels act as a neutral component in influencing the lives of people. After it gets exhausted, the society as well as individuals will get dismantled. Jennifer Wenzel, one of the significant contributors in the field of Energy Humanities states that the importance of fossil fuels in the society is getting unnoticed and society will have to meet failure in the near future if it depends too much on the single energy resource. According to the prediction made by Jennifer Wenzel, same thing had been incorporated in the novel to make people aware of the situation of exhaustion of fossils fuels. In the novel, the town Union Grove witnesses a collapse in the social order by which people start to experience an immobile and clueless life. Society undergoes an Energy Impasse and they struggle to come out from their dependence over fossil fuels in multiple ways but they fall short due to the society's move for a better energy resource. Excessive dependence on fossil fuel and its byproducts results in the decline of the entire society. It is because society and the individuals not only reckon on fossil fuels but also manufacture umpteen numbers of products from the petroleum such as cement, plastic, paint, vitamin capsules, roofing, shoes, cloth dyes, detergents, glycerin, antiseptics, ball point pens, fertilizers, CD's and DVD's, ink, tyres etc,

Throughout the novel, the society and its people thrive harder to come out from the oil built culture that they had relished so far. The modernized society cannot function effectively in the absence of fossil fuels. They were totally dependent on fossil fuels. Because of the drain of energy resource, the Union Grove town becomes entirely deserted and the entire infrastructure gets spoiled for which Robert laments "The old highway bridge there was in terrible condition. In places the cement roadway had rotted out and you could see daylight down to the water through twisted, rusty filaments of iron rebar and flaking girders" (125). A world without oil cannot function effectively like the world with oil, reconstructing the broken steel bridge became practically impossible because oil is used as a major ingredient for manufacturing steel. Everything started

changing because of the drain of energy resources. Routine lives of people was given a complete turn, it got shattered because of this drain. They had to experience a new world without oil, so people chose walking for commutation purposes. In the globalized set up, the societies met their demands through importing and exporting goods.

Imre Szeman in his *Introduction to Energy Humanities* says "the global exchange of goods and services, linked together via chains of just-in-time production and a network of container shipping, brings the spaces of the globe into every locale on the planet." (8). The global space had got expanded and at the same time transportation had shrunk the world into a tinier space. One is able to fetch and vend anything easily due to global transportation which is mostly executed through the free supply of oil resources. People in Union Grove enjoyed the advantages of oil resources to the maximum, when it got exhausted, people encountered scarcity for all products even for a pair of slippers. Robert tells that, he uses "Sandals, made by our cobbler, Charles Pettie, out of old automobile tire treads and leather straps" (71). The drain of oil resources had an impact on the food habits too. They were not provided with food through export and import due to the lack of transportation facility. To survive and live without hunger they modified their food habits, they started cultivation and produced food for themselves whereas when they were in the modern era food was provided on the door step through transportation facility when this facility was at risk they understood the importance of agriculture. Robert consumed steamed goats, toasted breads and corn frequently as his major food because it was available in abundance and he planted raspberry canes in the side yard and planned to have it later.

In the past two centuries, Oil regime and its supremacy had dominated politics, society and economy. The existing political and social changes have occurred due to the invisible influence of oil. For the conflict and threat in the present decade, the possession of oil plays an important role. Oil is used as an influential weapon to wage war and to end conflicts. The existing conflicts such as terrorism and imbalance in the power structures in the world order are purely based on the strife for the possession of oil. The narrator- protagonist, Robert Earle states, "We came here, to Union Grove, sandy's hometown, after the bomb went off in Los Angeles. That act of jihad was extraordinarily successful. It tanked the whole US economy." (23). In the preceding lines, terrorism brings about destruction and while reexamining history, one can understand the growth of global terrorism and its relation with the possession for oil. The catastrophic disaster which is going to be faced in the near future will be largely based on oil. So far the narrator-protagonist, Robert Earle had been enjoying a luxurious way of life by working as a corporate executive for a reputed company named Ellipses. When he was working as a corporate executive he never cared for anything he was a man with hectic schedule and work pressure. He did not have time to ponder on anything else around him. He flew frequently to Atlanta and Las Vegas for arranging trade shows. After the exhaustion of fossil fuel, he lost his job and moved from Brookline to Union Grove. He dumped his BMW's and due to the spread of epidemic disease he

lost his wife, Sandy. His son, Daniel moved to the other parts of the US to find a better living. He constantly lamented on how the world was once brightened and fashioned with the abundance of oil and this brightness had got diminished because of exhaustion, of oil.

Implicitly, oil influences and refashions all major structures and foundation blocks of the society such as Education, Health and Proper living conditions in the society. After the oil drain, the Union Grove town started breaking down into pieces and most of the established buildings in the society were deserted because half of the population was wiped out due to the spread of epidemic disease and all the public as well as private enterprises were closed. The entire society witnessed immobility in all aspects. "The population so diminished and no money to do anything and schooling reduced to the little church- affiliated academy" (33). The Education system plays a pivotal role in establishing a prosperous future for the citizens of tomorrow. Through education one can empower oneself as well as the society. If education fails to do its function in the society, it will result in the production of aimless people.

The novel animates the trauma and stress undergone by the people after the exhaustion of fossil fuel in the town. Because of exhaustion, electricity became scarce, so one of the characters in the novel named Larry Prager, feels pessimistic and cynic about his practice as a dentist in the town. He laments "All of the fabulous high- tech stuff we took for granted, gone! Now I have got to put patients under crude general anesthesia and drill with a damned foot treadle." (229). Electricity became a need to drill the teeth to treat dental problems but it was not possible because of the non-availability of electricity. He wished to quit his job because of treating patients by providing general anesthesia and by treating them with a foot treadle. When a patient named Greg Meers, approached for his root canal treatment, he lost his life while undergoing the treatment and Larry Prager understood, because of brutal methods, the patient could not bear pain and eventually death was the only result. He felt that he cannot treat patients with manual and brutal methods any more. In the modern world, people rely upon machineries for effective functioning; human beings (workers) are replaced by machines which is stated in the study of energy humanities as capital deepening whereas now the practice has miserably failed to function.

5. The Liquefaction and Disintegration of an Individual in the Society

Zygmunt Bauman in his book *Liquid Modernity* uses the terms "liquid" and "solid times" as a metaphor to denote the present times. The word "liquid" was used to depict the lack of sense and loss of values in the societal functions. According to him, modernization results in the disruption of the social values, ethics and perceptions of people in the society. Uncertainty among people paves way for liquefaction of their actions which leads to absurdity and meaningless life. In the earlier days, lifestyles and value systems of the people were preserved and unaltered. But in postmodern age, people experience a constant mobility followed by changes in relationships and identities. The relationship between the individual and the society has become more ambiguous. And the identity creation among individuals is rapidly become cynic and uncertain. He expresses

that the postmodern society insists an individual turn to "being suitable for global" and individuals were in a state to see and understand the world in a materialistic perspective rather than on intellectual one.

Bauman then depicts the continuous and threatening flexibility of people living in the postmodern society. The novel partially depicts Wayne Karp's deviant behaviour who initially work as a trucker for the Holland and Vesey Mills, and after the depletion of fossil fuels, he starts running a general store in the town. In the earlier days, he was very much interested in motor sports and after the depletion of oil, he quits his interest, and runs a crew who collects materials from old devastated buildings to run the general store and he sells the products to people in general store in the town. In the initial days of the economic collapse, he involved in drug trade especially marijuana around the nearby regions and started growing drugs to make their living easier but later, the trade declined because many people in the society started growing opium poppies, marijuana for medicinal purposes as well as to meet the needs of consumers. In the oil exhausted world, there is no prohibition as well as no governance to repress the illicit production and the supply of drugs. Due to the decline in his trade he turned to run the general supplies in the town. Deviance theory states that the individuals in the society vary from each other in understanding their societal values and norms in different perspectives. Some people in the society refuse and violate the norms in the society and they are called as deviant ones. The deviant tries to erase or dismantle the codified and uncodified norms existing in the society. The disintegration from good to bad deeds seems to be blurred. In the novel, Wayne Karp turns to be a scrapper and leads a thug life for to preserve himself because, after the fossil got depleted, people thrive hard to exist in the society. Wyne Karp and his crew turn out to be deviants for their survival. According to the concept of Durkheim, he turns out to be an 'Anomie' which means by disrupting the social identity of the individual in a society through violating the social values. One can witness the corrupting nature of human beings and the ongoing flexibility of people and the distinction between the good and bad getting erased among people. In the town, few people started smoking opium, but those with an extremely apathetic attitude toward survival tended not to last long in the new disposition of things (30). Through the new and continuous forms of socializing an individual moves away from understanding his self as well as the society. While undergoing hardships and apocalyptic crisis people don't wish to struggle for their existence, they tremendously fail to face the difficulties in front of them. In the novel, most of the people in the town simply wish to get an exit from the world because of the societal breakdown. Bauman states the crisis as "individuals are turned to be isolated monads" and fails to function collectively for the welfare of the society. The existed solidarity and integrity of the individuals in the society gets lost because of the individual's excessive flexibility and adaptability in the society

In the novel Robert Earle, the narrator-cum-protagonist who lost his wife Sandy and daughter named Genna in the epidemic disease frequently wishes to meet his son Daniel, who is

living in other parts of the world in search of a better life. But he is having a hidden self and it can be visible through his physical relationship with wife of Loren holder named Jane Anne. He explains the connubial relationship between him and Jane as:

Usually she came Thursday nights. It was an arrangement. She was my best friend's wife. My wife was dead. No suitable single women were around. Loren was apparently no longer able to have sexual relations with Jane Anne...things happened to people and between people and it was not necessarily anyone's fault. (16-17)

Loren also knows about the extra martial relationship between his wife and Robert but he never enquires about anything because people lives becomes entirely devastated after the complete depletion of fossil fuels. Ann is being in a state of misery due to the loss of her daughter in the flu and her son Evan moved to some other parts of the world like Daniel in search for a prosperous livelihood. The strange circumstances they undergo make them numb and absurd about their existence. But still Robert and Jane tend to maintain their social status and dignity. Robert, in the latter half of the novel takes up the responsibility as the mayor of the town to rebuild the town from the social breakdown. Jane Anne also holds a reputed position in the town, but in the oil exhausted world both of them suffer because of trauma and miserably fail to overcome it and indulge in physical relationship. They try to validate their relationship with their personal losses.

Jane Anne don't wish to lose Robert Earle in her life because she considers having a physical relationship with him will make her escape from the harsh realities of life and it turns out to be a fulfilment and solace for her. At one time, she begs and threatens Robert Earle if he quit the relationship she may put an end to her life. She cried and felt inferior after the intrusion of Britney Watling into the life of Robert Earle.

Jonathan Haidt, an American Moral Psychologist introduced the concept "Moral Matrix" which means that a set of shared values, meanings and ethics existing in the society provides a complete sense of meaning for the people. So he opines that the welfare of a society depends upon the six major foundation blocks. He explains the six things by telling the direct opposite to those structures to make people understand and disintegrate a welfare society from a distorted one. They are Care-Harm, Liberty-Oppression, Fairness-Cheating, Loyalty- betrayal, Authority-Subversion and Sanctity- Degradation. In the novel *World Made by Hand* the entire Union Grove town witnessed a dismantled life after the cease of fossil fuels. This paved way for the disruption of moral and societal beliefs. The Wayne Karp's crew deceived others by stealing products from their houses. They started harming others for their prosperity. After the fossil fuel got exhausted, the government failed to function and there were no established or codified laws to preserve the society and its people from the wrong doers. At that time, people's societal comfort and livelihood was under stake and Robert Earle the protagonist tried to sort out the problems by willingly recruiting himself as the Mayor of the town and suspended the existed mayor, Dale Murray. Then

the intervention of Brother Jobe and their New Faith group into the town made things much fairer but they have their own hidden motives which gets unveiled in the later part of the novel. The involvement of New Faith group into the society play a significant role in shaping the morale of the entire society. The main aim of the New Faith Brotherhood is to preach God in an austere manner and they consider that the present apocalyptic situation is because of people's dismissive nature towards God. People in the demolished state considered Brother Jobe and their people as a messiah or saviour who have willingly come from Los Angeles to the town to save the people from the sufferings. But they to delude and convert the people to their way of lifestyles. They bribed Dale Murray and signed to buy the school in the town for a ten-year contract at five thousand dollars per year to establish their foundations in the town. The contract was signed between Brother Jobe and Dale Murray, and people in the town were unaware of that. Initially people opposed the deal and were against the New Faith group. During the expedition to recapture the lost ship and crew from Albany, reworking the water systems, and turning the playgrounds into cultivatable lands, the new faith group and Brother Jobe played a dominant role in that act and tried to secure a position in the town. Their hidden motives were lately understood by the people through the new faith people forcibly shaved off their beards of men in the town. Then Brother Jobe introduced Robert to Mary Beth Ivanhoe of Lynchburg, Virginia and tells her as the precious mother of their faith. She also insisted Robert to convert as Father. Robert then understood the hidden plot of New Faith. But the dominance of the New Faith group in the town was not diminished till the end of the novel. The New Faith group cleverly exploited people's distorted state and tried to inculcate their ideologies into them. Brother Jobe was accused and arrested for forcibly shaving off the beard of men in the town. But he escapes from his imprisonment and they plan to rework a building for their precious mother, Mary Beth in the last phase of the novel. The six major moral foundations in the town were demolished by various forces. At last, the society in the novel became destabilized, morally corrupted and once existed social morale of the society got liquefied.

6. CONCLUSION AND FINDINGS

The modern social, economic as well as political conceptions were grounded on the basis of the ample availability of fossil fuels. According to Imre Szeman, the availability of fossil fuels and its multiple usages developed and nourished the humankind in many folded ways. Human beings are fossil fuel creatures and each individual belongs to petrocultures because each and every individual in the society rely upon fossil fuels even for their day-to-day activities. Based on a research from the year 1850 to 1950 during the century, the fossil fuel consumption hiked from 6.8 to 90.9% and the existed dominant energy systems were surpassed by the introduction and massive utilization of fossil fuels into the human societies. It is evident that all the transformations and rapid expansion happened due to the liability of fossil fuels. Because the fossil fuels affect the entire world in dual ways. Firstly, it declines the ecological health of the world due to excessive

emission of carbon dioxide and it leads to multiple catastrophic events such as global warming, ozone layer depletion and hike in the sea level. And secondly, fossil fuel is a non-renewable energy resource, it may have chances to exhaust in the near future. The excessive dependence affects the society in one way or the other. The novel *World Made by Hand* provides a grim picture of how the world will turn topsy-turvy if the fossil fuel ceased to exist, and depicts a distorted society in which people become morally and socially corrupted. The individual's behaviour in the society is largely transformed and dislocated from his nature. The novel contrasts the two worlds: people lives in an oil world and how people's lives are adversely changed after the non-availability of fossil fuels. The novel highlights the importance of fossil fuels in one's life. The author James Howard projects an apocalyptic vision of future through multiple ailments which consumes the lives of people with misery and absurdity. His emphasis of energy transition is inevitable in future otherwise; it will affect the lives of people.

The existing difficulties and crisis in the society are left unanswered because people are inert to tackle people's excessive dependence over fossil fuel nor discovering an alternative sustainable forms of energy. The excessive burning of fossil fuels brings climatic changes and people as well as government fail to take action against it. Amitav Ghosh in his book *The Great Derangement* states "global inaction on climate change is by no means the result of confusion or denialism or a lack of planning: to the contrary, the maintenance of the status quo is the plan."(145). People in the societies are aware about the crisis but reluctant to act upon it due to various socio-political reasons. But they fail to understand being deficient in finding solutions to the existing problems will bring an end to our modernized lifestyles and it leads to the destruction of the entire living beings on earth. A detailed study and definite understanding about people's consumption of energy resources is necessary to preserve and provide a better environment for the upcoming generations. Stephanie LeMenager in her work *Petro-Melancholia* states that "Decoupling human corporeal memory from the infrastructures that have sustained it may be the primary challenge for ecological narrative in the service of human species survival beyond the twenty-first century (16). She explains that an individual need to shift his perceptions and lifestyle which were so far based upon the fossil fuel era. For preserving the ecological health of the world as well as to move forward, energy transition is mandatory, and she considers that the transition requires much and more efforts for the energy transition.

The speculative fiction *World Made by Hand* provides a nerve wrecking view of the society after the cease of fossil fuel. It cautions the people by portraying a disrupted society and morally corrupted individuals who exhibit deviance as their major characteristic trait. The main thrust of the research paper is to signify the importance of energy systems in the society and depict how fossil fuel alters the social imaginaries of people in the society and shows how the exhaustion of fossil fuel can affect the socio-cultural behaviour of the people. The characters in the *World Made by Hand*. Robert Earle, Wayne Karp, Jane Anne and Britney Watling are affected psychologically

and socially after the depletion of oil. Wayne Karp and his group exhibit deviant nature in order to protect themselves. The societal structure and the lives of individuals gets distorted and the society suffers heavily in the absence of oil. The research throws light on how human beings' modern conceptions are built upon the invisible foundations of fossil fuels.

REFERENCES

- Abrahamson, Peter. (2004) "Liquid Modernity: Bauman on Contemporary Welfare Society." *Acta Sociologica* 47(2), 171-79.
- After Oil*. (2016) Edmonton, Alberta: Petrocultures Research Group.
- Barrett, Michele. (1991) *The Politics of Truth: From Marx to Foucault*. Cambridge: Polity.
- Bauman, Zygmunt. (2000) *Culture as Praxis*. London: Sage.
- . (1987) *Legislators and Interpreters*. Cambridge: Polity.
- . (1991) *Modernity and Ambivalence*. Cambridge: Polity.
- . (1993) *Postmodern Ethics*. Oxford: Blackwell.
- . (2000) *Liquid Modernity*. Cambridge: Polity.
- . (2000) *Modernity and the Holocaust*. Ithaca, NY: Cornell UP.
- . (2003) *Liquid Love*. Cambridge: Polity.
- Beck, Ulrich and Mark Ritter. (2013) *Risk Society: Towards a New Modernity*. London: Sage Publications.
- Beilharz, Peter. (1991) *Zygmunt Bauman: Dialectic of Modernity*. London: Sage.
- Berger, Peter and Thomas Luckmann. (1971) *The Social Construction of Reality*. Harmondsworth: Penguin.
- Buell, Frederick. (2012) "A Short History of Oil Cultures: Or, the Marriage of Catastrophe and Exuberance." *Journal of American Studies* 46(2), 273-93.
- Cantell, Timo and Poul Poder Pedersen. (1992) "Modernity, Postmodernity and Ethics—An Interview with Zygmunt Bauman." *Telos* 93, 133-44.
- Chakrabarty, Dipesh. (2009) "The Climate of History: Four Theses." *Critical Inquiry* 35(2), 197-222.
- Cohen, R. and Kennedy. (2000) *Global Sociology*. Basingstoke: Macmillan.
- Durkheim, Emile and Steven Lukes. (2013) *The Division of Labour in Society*. Houndmills: Palgrave Macmillan.
- Featherstone, Mike. (1991) *Consumer Culture and Postmodernism*. London: Sage.
- Ghosh, Amitav. (2002) "Petrofiction: the Oil Encounter and the Novel." *The Imam and the Indian*. New Delhi: Ravi Dayal.
- Giddens, Anthony. (1990) *The Consequences of Modernity*. Cambridge: Polity.

- Haidt, Jonathan. (2013) *The Righteous Mind: Why Good People Are Divided by Politics and Religion*. New York: Vintage.
- Jackson, Tim. (2009) *Prosperity without Growth: Economics for a Finite Planet*. New York: Routledge.
- Jonathan, Haidt. (2013) *The Righteous Mind: Why Good People are Divided by Politics and Religion*. UK: Penguin Books.
- Kunstler, James Howard. (2008) *World Made by Hand*. New York: Grove Press.
- Lamborn, Alan C. (1983) "Power and the Politics of Extraction." *International Studies Quarterly* 27(2), 125-146.
- LeMenager, Stephanie.(2012) "Fossil, Fuel: Manifesto for the Post-Oil Museum." *Journal of American Studies* 46(2), 375-94.
- . (2019) *Living Oil: Petroleum Culture in the American Century*. New York: Oxford UP.
- Mitchell, Timothy. (2011) *Carbon Democracy*. New York: Verso.
- Munif, Abdelrahman. (1992) *Cities of Salt*. Trans. Peter Theroux. New York: Vintage.
- Pletsch, Carl E. (1981) "The Three Worlds or Division of Social Scientific Labor." *Comparative Studies in Society and History* 23(4), 565-67. Print.
- Price, David. (1995) "Energy and Human Evolution." *Population and Environment, A Journal of Interdisciplinary Studies* 16(4), 301-11.
- Smith, Dennis. (2000) *Zygmunt Bauman: Prophet of Postmodernity*. Cambridge: Polity.
- Szeman, Imre.(2012) "Crude Aesthetics: The Politics of Oil Documentaries." *Journal of American Studies* 46(2), 423-39.
- . (2007) "System Failure: Oil, Futurity and the Anticipation of Disaster." *South Atlantic Quarterly* 106(4), 805-823.
- Taylor, Charles. (2002) "Modern Social Imaginaries." *Public Culture* 14(1), 91-124.
- Tester, Keith. (2004) *The Social Thought of Zygmunt Bauman*. London: Palgrave.
- Urry, John. (2007) *Mobilities*. Cambridge: Polity.
- Watts, Michael. (2001) "Petro-violence: Community, Extraction and the Political Ecology of a Mystic Commodity." *Violence Environments*. Ed. Nancy Lee Peluso and Michael Watts. Ithaca, New York: Cornell UP.
- Wenzel, Jennifer. (2015) "Way Beyond Petroleum." *Contemporary Literature* 56(3), 505-13. Print.
- Wilson, Sheela, Adam Carlson and Imre Szeman. (2017) *Petrocultures: Oil, Politics, Culture*. Montreal: McGill-Queen's UP.
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13 | A Study on Petromodernity, the Socio-cultural Implications of Oil and the Disintegration of Human Behaviour in James Howard Kunstler's World Made by Hand

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