IDEOLOGY OF SUSTAINABLE ARCHITECTURE: A CRITIQUE

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ABSTRACT

IDEOLOGY OF SUSTAINABLE ARCHITECTURE: A CRITIQUE

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The general consensus on Sustainable Architecture is that, it is *the* cure for the ecological crisis. However, neither sustainability, nor architecture exists in a vacuum, free of any connection to political struggle. Therefore, a thorough research must be conducted in order to uncover the roots of sustainability, and its relations to architecture. The objective of this thesis is to form a critique of sustainable architecture, and propose an emancipatory ecological architectural praxis. Current understanding of nature can be defined as a bourgeois ideology shaped by Kantian dualism, directly influencing the mainstream definition of 'Sustainable Development' in the Brundtland Report, released in 1987. This ideology of nature brings with it a misguided sense of development which locates technology at its core. The *belief* that technology will solve all of the world's problems is a mere treatment of the symptom, whereas the real disease remains untouched. The thesis analyses the problem of sustainability from three distinct points of view: Marxist, Eco-Socialist and Green Capitalist perspectives. As a result of this analysis, the thesis aims to propose a radical and holistic approach to sustainable architecture, which is essential in forming a sustainable architectural praxis.

Keywords: Eco-socialism, Green economy, Ideology, Marxism, Sustainable architecture

ÖZ

SÜRDÜRÜLEBİLİR MİMARLIĞIN İDEOLOJİSİ: BİR ELEŞTİRİ

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Sürdürülebilir mimarlık hakkında mutabık kalınan nokta şudur ki, sürdürülebilir mimarlık ekolojik krizden tek çıkış yolumuzdur. Ancak ne sürdürülebilirlik ne de mimarlık siyasi mücadelelerden ve tartışmalardan ayrı bir boşluk içerisinde var olmaktadır. Dolayısıyla sürdürülebilirliğin kökenleri ve mimarlık ile olan ilişkileri detaylı bir çalışma ile açığa çıkarılmalıdır. Bu tezin hedefi sürdürülebilir mimarlığın bir eleştirisini oluşturarak çevreci ve özgürlükçü bir mimarî pratik önermektir. Doğa kavramının güncel tanımı Kantçı ikiciliğin tahakkümü altındaki burjuva ideolojisinden beslenmektedir. Bu tanım Sürdürülebilir Gelişme'nin ana akım tanımını yapan 1987'de yayımlanmış Brundtland Raporu'nu doğrudan etkilemiştir. Bahsedilen doğanın ideolojisi yanlış yönlendirilmiş ve teknolojiyi baz alan bir ilerlemeciliğe yol açar. Teknolojinin bütün sorunlara derman olacağı inancı yalnızca semptoma müdahaledir ve hastalığın kendisine etki etmez. Bu tez sürdürülebilirlik problemini üç koldan ele alacaktır: Marksist, Eko-sosyalist veYeşil Kapitalist. Bu incelemeler sonucunda bu tez sürdürülebilir bir mimarî pratik için elzem olan bütüncül ve radikal bir sürdürülebilir mimarlık yaklaşımı getirmeyi hedeflemektedir.

Anahtar Kelimeler: Eko-sosyalizm, İdeoloji, Marksizm, Sürdürülebilir mimarlık, Yeşil ekonomi

To my father, who has been the greatest inspiration for me, academically and personally.

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CHAPTER 1

INTRODUCTION

Let us not, however, flatter ourselves overmuch on account of our human conquest over nature. For each such conquest takes its revenge on us. [1]

— Friedrich Engels

1.1. The Current State of Affairs

As of July 2019, the heatwave scorching Europe is moving northwards, threatening the ice sheet in Greenland.[2] The worrying implications of this include the rise of sea level at an unexpected rate. Resulting from the manmade climate change, this recent heatwave acts as a reminder of the extent of revenge which nature takes on us in retaliation to our self-proclaimed conquests over it. In such context, it would be no surprise that sustainable architecture and green design has become the leading current design. However, is the mainstream approach to sustainable architecture an extension of the said conquests over nature, or a precaution against the imminent revenge of nature? Or to put it more clearly, is the mainstream approach to sustainable architecture an ideological descendant of the already existing definition of nature, or

[1] "IX: The Part Played by Labour in the Transition from Ape to Man." 1883-Dialectics of Nature-ch09. Accessed January 10, 2017. https://www.marxists.org/archive/marx/works/1883/don/ch09.htm.

[2] Miles, Tom. "Europe's Record Heatwave Threatens Greenland Ice Sheet." Reuters. July 26, 2019. Accessed July 28, 2019. https://www.reuters.com/article/us-europe-weather-greenland/europes-record-heatwave-threatens-greenland-ice-sheet-idUSKCN1UL15C.

is it a new page in human-nature relationships? This thesis aims to reiterate architects' position in sustainable architecture, by raising questions on the ideological nature of sustainable architecture.

1.2. Motivation

As the world goes down a destructive path, it has become apparent that business-as-usual policies are doomed to fail. Therefore, sustainability acts as a lifesaver, promising a safer future. Yet, the content of this sustainability is rarely questioned. Engineers and scientist are busy developing technologies that are greener and more efficient, while architects implement these technologies in their design. There are also other approaches such as passive design. As one digs deeper into the topic of sustainability however, it becomes apparent that these practices are not enough to ensure a future for the next generation. Combined with the prevailing inequalities and exploitation manifesting itself more and more in spatial practices, it was inevitable that a search of alternatives would be due. This thesis is the result of a frustration caused by social inequalities, ecologic crisis and the general disinterest to these topics in architectural and urban practices.

1.3. Previous Coverage of Sustainable Architecture in Academia

Sustainable architecture has been the topic of academic research for some time, critically or otherwise. For instance, Nerkis Kural has done a thorugh and critical research on the case of Temelli, Ankara. Kural emphasizes the potential of urban design as an agent of social and environmental sustainability. In her own words, the urban framework Kural adopts aims

> [T]o operationalize urban design in the process of urbanization, for a socially sustainable urban environment that would pursue an environmentally friendly existence within an egalitarian, democratic, participatory society which would be possible under conditions of self-governance and subsidiarity.[3]

Kural also promotes that if sustainability is able to find recognition on global platforms with clear objectives, creating design guidelines and productive applications of such guidelines would be possible.[4] The guidelines and criteria are further explored in the master's thesis of Sevda Damati, titled *Principles in Green Architecture: An Inquiry into the Evaluation Criteria of Green Awards*:

> Organizations and institutions involved in environmental issues each provide their own criteria in order to draw a green building. The organizations holding award programs are also among them, which specify green criteria and let the nominated buildings compete with each other according to those criteria[5]

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[3] Kural, Nerkis. "Parameters of Sustainability in Urban Resıdentıal Areas: A Crıtique Of Temelli/ Ankara." PhD thesis, Middle East Technical University, 2009. p. 3.

[4] ibid.

[5] Nazhad Damati, Sevda Hassan. "Principles in Green Architecture: An Inquiry into the Evaluation Criteria of Green Awards." Master's thesis, Middle East Technical University, 2013. p. 61.

According to Damati, the said organisations, although having different criteria, their main principles are common. Thus, architects are able to take part in a competition among themselves, despite the fact that they take part in different certification programs and organisations. Damati interprets this competition under a positive light, claiming: "The efforts played by the designers and builders in order to be among the winners of the awards constitute a great step to convey the architecture toward environmentally friendly architecture".[6] Adam Rayne in his master's thesis also emphasizes the importance of acquiring LEED or Passive House certificates for marketability purposes of the proposed residential typologies.[7] The common ground of the three theses is that guidelines and certifications are crucial in architectural design. However, Williamson et al. criticizes the emphasis on such guides and checklists as follows:

> At best, checklists show a range of possibilities; at worse they risk giving a confusing indication of how to proceed in design. They do not necessarily help people design (though that is usually their intent), and may actually mislead because they cannot cope with the complexities and uniqueness of a particular design situation.[8]

Therefore, condensing sustainable architecture into checklists may reduce the complexity involved in the process of design. In addition, pre-made solutions create ease of access in terms of design, eliminating the need to thoroughly understand

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[6] ibid., p. 63.

[7] Rayne, Adam S. "Architecture for a Sustainable and Resilient Future: A Residential Typology for Urban Infill." Master's thesis, University of Cincinnati, 2015.

[8] Williamson, Terry, Antony Radford, and Helen Bennetts. *Understanding Sustainable Architecture*. Taylor & Francis E-Library, 2004. PDF. p. 13.

sustainability in order to implement it in a building. The fact that architects are prone to such reductionism becomes apparent in a research done in Australia:

> When 350 architects in Australia were asked to nominate the 'important factors that define good design' only 30 per cent of responses included issues concerned with impact of buildings on the environment. […] When the same architects were asked what sustainable design features they included in their last five designs, a rather narrow conception of the issue was obvious from the responses. The most frequently mentioned features were orientation, shading, insulation and natural ventilation, indicating that the architects conceive sustainability in very limited terms, and more allied to the concept of energy-efficient design rather than a broader range of issues. Similarly, the advice an architect might get on tackling climate change does not deal with the issue in a holistic way, again despite rhetoric to the contrary.[9]

A holistic approach to sustainability and sustainable architecture is not possible solely by focusing on the technical aspects of the problem. United Nations World Economic and Social Survey published in 2013 describes urban sustainability as the following: "[U]rban sustainability is described and a framework is proposed based on four pillars: economic development, social development, environmental management and effective urban governance".[10] Hence, an understanding of economics, politics, environment and society is a must, in order to form a holistic understanding of sustainability. However, the composition of this understanding presents us with yet another problem. Since there is no single understanding of economics, politics, society and environment, how should architects locate themselves within such a flux?

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[9] ibid., p. 121.

[10] *World Economic and Social Survey 2013: Sustainable Development Challenges*. New York: United Nations, 2013.

1.4. Outline

Contrary to mainstream approaches, neither sustainability nor architecture exists in a vacuum. They naturally exist within relationships to society, economics and politics. They have been shaped by ideologies, social norms and economic concerns. Therefore, sustainable architecture is contextual. An out of context evaluation of sustainable architecture creates an echo chamber where only discussions are on the technical aspects of it. Hence, a thorough understanding of sustainable architecture must be established. In order to do so, the second chapter of this thesis aims to uncover the ideology behind the terms sustainability and nature. Throughout history, there has been many definitions and understandings of nature. This includes Taoist and Buddhist approaches to nature, which differs radically from the western understandings. However, a certain understanding has triumphed over the others, as a result of the global expansion of the capitalist mode of production, and a sense of ethics it brought with it. Consequently, the predominant understanding of nature shaped the area of sustainability on a global scale. Thus, sustainable architecture is shaped by this western ideology, and must be treated as an ideological construct.

Parallel to the aims of the previous chapter, third chapter elaborates the history behind the term sustainable architecture and how it came to be. In order to so, history of architecture itself must be looked into. The need to define a building sustainable did not emerge until the oil crisis of 1973. This does not necessarily mean that every practice up to 1970s were environmentally friendly. For example, it is known for a fact that deforestation in order to make up for agricultural land caused major problems in the Roman era. Or in the colonies, vast areas were allocated as plantations. The environmental destructiveness rose to a peak as a result of the industrial revolution. The need to build according to the nature diminished, since the abundance of materials

and advancement of the technology allowed a building extravaganza. As a result of the visible effects of such an expansion, a sense of environmental awareness manifested itself in the form of anti-pesticide, anti-DDT movement in the late 1960s. OPEC oil crisis in 1973 triggers a global paradigm shift, in which it is realized that natural resources are not un limited. This new approach to energy was reprised in architecture as the High-Tech movement, led by large architectural firms. In today's world, sustainable architecture has become the norm for architectural practice, without architects having much insight about the subject. Sustainability in architecture is treated as a simple construction technique, without any background or consequences.

In an area as rich as sustainability, architects' disinterest in the topic naturally raises the question of "How does other areas approach sustainability?". In order to clarify the argument on sustainability, the fourth chapter gives insight about the three main contemporary paradigms on sustainability, to propose paths architects can take. The first one is the liberal paradigm, which integrates environmentalist concepts with the prevailing market economy, ultimately creating the mainstream approach to sustainability. By greening the businesses and products, liberal approach to sustainability aims to provide a better world and environment for the future generations. By such reforms, market relations are left largely unscathed, thus maintaining the capitalist nature of society. Eco-socialists and Marxists oppose this form of greening, since it does not challenge the inherently destructive nature of capitalism. However, the "left" is not a single block entity and therefore, it is only usual that there are diverging opinions on ecology. According to the eco-socialists, dismantling capitalism and any growth based productivism is the only condition under which the world can survive, and the labour class is the power to achieve such change. They also have critical views on Soviet style growth and Marx's views on protection of natural resources, claiming them to be productivist and unsustainable. Whereas Marxists claim that this reading of Marx's theories on nature misleading, and calls for a dialectic approach, which is existent in Marx's writings. Should architecture free

itself from the purely technical perspective, a critical paradigm on sustainability may help form an emancipatory architectural praxis.

Breaking free of the said technicism is of course not enough. Role of the architect as a political subject must be discussed in order to properly integrate critical sustainable paradigms in architecture. Fifth chapter focuses on the role of the architect, and their position as political subjects, concluding open-endedly, encouraging further studies on sustainable architecture as an emancipatory praxis. Architects, under the illusion of being the godlike creator of spaces, stray further from the working class, as the emphasis on creativity ensures. Accepting the role of creators, architects act as the ideological extension of the current mode of production. As a result, any sustainable practice that architects try to implement in their projects acts merely as cosmetic appliances and “green-washing”. As this thesis aims to demonstrate, architects must identify as workers, intellectual labourers, and organise as such, in order to put forth a collective will for a truly sustainable architectural praxis.

CHAPTER 2

THE UNDERLYING CONCEPTS OF SUSTAINABLE ARCHITECTURE

2.1. Nature and Sustainability

> *For the first time, nature becomes purely an object for humankind, purely a matter of utility; ceases to be recognized as a power for itself; and the theoretical discovery of its autonomous laws appears merely as a ruse so as to subjugate it under human needs, whether as an object of consumption or as a means of production.* [11]
>
> *– Karl Marx*

The necessity to begin the thesis with chapter is something to be emphasized. Words such as environment and nature may seem self-explanatory and definitions readily available. However, taking these concepts as granted implies that they are transhistorical, and arguing their historical construction becomes a futile attempt. Attaining the words transhistoricity reduces them to the mere definition of them, collapsing the many layers of meanings behind them into a single one. Claiming that the word *nature* for example, is a single layered static entity leads to many misconceptions. These words are very much alive and shapes/is shaped by the dominant mode of production. As Necdet Teymur puts it: "Neither the ideology of environment nor the 'environmental practices' can be understood without a clear

[11] Marx, Karl. Grundrisse, Etc. Harmondsworth: Penguin Books in Association with New Left Review, 1973. p. 336.

understanding of dominant ideology of the prevailing mode(s) of production".[12] Therefore, delving into the concepts shaping sustainable architecture as we know it today is a necessity. Otherwise any discussion made on architecture is bound to be confined within the realm of capitalist production.

With that said, throughout the thesis, certain concepts will be mentioned to elaborate the claim that sustainable architecture has evolved into an ideological construct. In order to do so, these concepts must be explained to clear any confusion around the issue. However, the main concern of this chapter is not the etymology of the words. Words play an important part in how we perceive the world, how we produce knowledge. Although words and their meanings shape according to the language and culture they are in, it is an undeniable fact that in today's globalized world only one culture has prevailed to dominate the others. Therefore, discussing the definition of nature by, for example, Buddhist terms will not be a topic in this thesis. The focus will be on the western bourgeois ideology, as it is presented as the only means of survival in the current market economy. This chapter will elaborate how the words we know thus far has been historically shaped, and utilized as extensions of the bourgeois ideology. As a result, redefinition of the concepts will be discussed, and how changing the understanding of such words can be used to create an emancipatory praxis.

[12] Teymur, Necdet. *Environmental Discourse: a Critical Analysis of "Environmentalism" in Architecture, Planning, Design, Ecology, Social Sciences, and the Media*. London: ?uestion Press, 1982. p. 179.

2.1.1. Nature

The first term to be elaborated is nature. Before focusing on sustainability and sustainable architecture, one must start from scratch. Sustainability, although having become an overused and vague term, has its roots in environmental concerns over nature. Even though the term sustainability has been integrated with almost every concept –such as sustainable economy, sustainable growth, or even sustainable instability– it still refers to environmental sustainability and preserving the nature as is, thus, the earth. What then, is nature? How has it been defined and perceived? Can it be redefined and integrated with spatial practices? To quote Güven Arif Sargın:

> By moving away from the official perception of nature, one should […] locate the meanings of emancipatory nature in spatial practices. […] The emancipatory transformation of environment and its spatial practices in everyday life are now believed to generate a sphere of autonomous action within the constraints of the present system.[13]

2.1.1.1. Internal and External Nature

In his book titled *Environmental Discourse: A critical analysis of 'environmentalism' in architecture, planning, design, ecology, social sciences and the media* (1982), Necdet Teymur, discusses that the words commonly used in environmental discourse – such as: man, environment, society, nature, etc. – are "imprecise, vague, fuzzy and highly variational terms. Especially the word 'environment' refers to nearly

[13] Sargın, Güven Arif., ed. *Nature as space: (re)Understanding Nature and Natural Environments*. Ankara: METU Faculty of Architecture Press, 2000. p. 73.

everything (thus to *nothing*)"[14]. Among the vagueness, a certain understanding makes itself visible. Our contemporary mainstream understanding of nature and natural sciences has its roots in the age of enlightenment. It is no doubt that the rationality of that era has contributed immensely to the creation of the scientific method utilized still today. However, this does not exempt them from being criticized. According to Neil Smith, the *official* definition of nature can be traced back to Kant. The dualist understanding of Kant's nature crystallizes into the backbone of the bourgeois ideology of nature. In his book *Uneven Development: Nature, Capital, and the Production of Space,* Smith explains his views on this as following: "Kant distinguished between several different "natures," but […] he was led to distinguish in particular between an internal and external nature. The internal nature of human beings comprised their crude passions while external nature was the social and physical environment in which human beings lived"[15] The concept of nature, as can be seen, does not only refer to environment *per se*, but also human nature, or essence of a being. The term nature poses a double status, the first being the external reality in which the human beings may or may not be a part of. And the second being the internal, the essence of beings. Derived from the internal meaning of nature, the word *natural* can colloquially mean *normal,* or *ordinary.* Which in turn reduces the significance of the implications of the word. For example, natural disasters and the results are seen strictly *normal*. In their 2006 article written right after hurricane Katrina, Strolovitch, Warren and Frymer say the following:

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[14] Teymur, Necdet. *Environmental Discourse: a Critical Analysis of "Environmentalism" in Architecture, Planning, Design, Ecology, Social Sciences, and the Media*. London: ?uestion Press, 1982. p. 51

[15] Smith, Neil. *Uneven Development: Nature, Capital, and the Production of Space*. Athens, Georgia: The University of Georgia Press, 1984. p. 12.

> In public imagination, natural disasters do not discriminate, but are instead "equal opportunity" calamities. Hurricanes may not single out victims by their race, class or gender, but neither do such disasters occur in historical, political, social, or economic vacuums. Instead the consequences of such catastrophes replicate and exacerbate the effects of extant inequalities, and often bring into stark relief the importance of political institutions, processes, ideologies, and norms.[16]

It is apparent that the disadvantaged and the marginalized suffer the most from such disasters. Although it is undeniable that natural disasters are caused by the inner and scientifically explicable workings of the natural world, whether it is shifting tectonic plates or extreme weather events, one cannot normalize the sufferings of the underclass as *natural.* As an extreme example, a mining accident that took place in Turkey in 2014 was mentioned in disdain by the then prime-minister as such accidents are in the nature of mining.[17] Naturalization, normalization of the consequences of such events breeds reluctance to alleviate the pain caused by it.

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[16] Strolovitch, Dara, Dorian Warren, and Paul Frymer. "Katrina's Political Roots and Divisions: Race, Class, and Federalism in American Politics." Understanding Katrina. June 11, 2006. Accessed 2015. http://understandingkatrina.ssrc.org/FrymerStrolovitchWarren/.

[17] Weaver, Matthew, and Tom McCarthy. "Turkey Mine Disaster: Protests Break out after Erdogan Speech – Live." *The Guardian*, Guardian News and Media, 14 May 2014, www.theguardian.com/world/2014/may/14/turkey-mine-explosion-rescue-operation-live-updates.

2.1.1.2. Rationalism and Technicism

The fact that we must refer to human nature as *human* nature, emphasizes another point. To put it more specifically, human and nature pose a dichotomy in Kantian logic. The dichotomy of internal and external serves as the basis of western bourgeois ideology. By using the mind as a leverage, this dichotomy, thus nature can be overcome. Or in other words, nature can be bent to human beings' will, if approached with a right state of mind, the right state of mind being rationality and scientific method. However, this dichotomy reduces the relationship between *human* and *nature,* or *internal* and *external* nature, to a purely technical one. It implies that any obstacle can be overcome with technical improvements. For example, in terms of architecture, a large high-rise equipped with sustainable technologies such as solar panels, triple glazed windows, insulation with high r-value, geothermal heat pumps and many more, is *the* answer to the ecological crisis. It is clear that it is an improvement over the brute concrete high-rises, therefore, it *must* be the correct way. However, these are merely subtle technical rearrangements, focused only in the technical aspects of the issue. Necdet Teymur calls this phenomenon "technicism", and states the following: "Once confined to the domain of technical problem solving, other aspects of problems are effectively ignored. […] [A]ny criticism of technicism meets with claims such as "one's got to do one's job", or "I am not a sociologist, I am only an architect"" (Teymur, 1982, p.122). The relationship between internal and external nature that reduces nature itself and confines it to a superficial technical framework proves problematic, as many other aspects of it ignored. William Leiss states the following:

> In seventeenth-century philosophy the concept of mastery over nature had achieved its definitive modern form, the one which has remained authoritative and substantially unaltered down to the present day. The rough path marked out by Bacon quickly became a well-traveled road. An age which was becoming enthralled with the prospects of scientific discovery found its

> guiding credo in the notion that man's dominion over the earth would be established by the progress of the arts and sciences.[18]

Similar to Kant, Bacon seeks control over nature by means of rational mind, arts and sciences, and by means of *metabolizing* nature. The process of extracting resources from nature by means of labour is referred as *metabolism* by Marx. This action of metabolizing nature is apparent and necessary throughout the history of civilizations. As a matter of fact, Weber states the following. "Capitalism existed in China, India, Babylon, in the classic world, and in the Middle Ages. But in all these cases, as we shall see, this particular ethos was lacking".[19] The ethos mentioned by Weber is none other than the bourgeois ideology, which he refers to as the spirit of capitalism. The secret ingredient of contemporary capitalism is this rationality, in which nature is treated as an external subject to be metabolized.

> It might thus seem that the development of the spirit of capitalism is best understood as part of the development of rationalism as a whole, and could be deduced from the fundamental position of rationalism on the basic problems of life. In the process Protestantism would only have to be considered in so far as it had formed a stage prior to the development of a purely rationalistic philosophy[20]

Rationalism as a whole is not portrayed as pure evil, but rather its use by capitalism. Over the course of its development rationalism benefitted capitalism to dominate the natural world, as Kant has prophesized. By externalizing nature, it is essentially commoditized. Nature is only as valuable as its use value or exchange value. "The free, rational and 'economic man' is the concept of how bourgeoisie wanted to

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[18] Leiss, William. *The Domination of Nature*. Montreal: McGill-Queens University Press, 1994. p. 106.

[19] Weber, Max. *The Protestant Ethic and the Spirit of Capitalism*. Translated by Talcott Parsons. London: Routledge, 2001. p. 17.

[20] ibid., p. 37.

represent itself. It can also be seen as the logical conclusion of man as the lord and master of nature which justified the way in which that very 'nature' was appropriated and all working peoples were exploited" (Teymur, 1982, p.139). The self-portrayal of the bourgeoisie as the master of nature not only leads to extensive commoditization of nature, but also proves the inability of the bourgeoisie in solving the ecological crisis. Therefore, only by challenging this over-rationalizing bourgeois ideology, one can be able to define nature in an emancipatory manner. Any deductions made from the mainstream understanding is either doomed to fail or will only act as an extension of capitalist exploitation of nature. Once the relationship of labour and nature is seen under a different light and architecture re-imagined, a sustainable architectural praxis will follow.

2.1.2. Sustainability

Keeping the previous section in mind, the birth of the concept sustainability, as we know it today, can be traced to the uprising against DDTs in the United States. The book *Silent Spring* by Rachel Carson, published in 1962 acted as the driving force for the newly founding environmentalism. The adversary effects of chemicals used to improve agricultural production raised awareness on the topic. However, resorting to environmentally questionable acts as a way of improving production has been a method for as long as civilizations have existed. Engels, in *Dialectics of Nature*, explains as follows:

> The people who, in Mesopotamia, Greece, Asia Minor and elsewhere, destroyed the forests to obtain cultivable land, never dreamed that by removing along with the forests the collecting centres and reservoirs of moisture they were laying the basis for the present forlorn state of those countries. (…) Thus at every step we are reminded that we by no means rule over nature like a conqueror over a foreign people, like someone standing outside nature—but that we, with flesh, blood and brain, belong to nature, and exist in its midst,

> and that all our mastery of it consists in the fact that we have the advantage over all other creatures of being able to learn its laws and apply them correctly.[21]

As discussed in the previous section, it is historically evident that by externalizing nature and pretending to have gained mastery over it causes more misery than benefit. However, although having criticised rationality, it is undeniable that rationality itself has contributed significantly to develop the ability to understand the results of such actions. Thanks to this and the determined environmental protests, use of DDTs is a topic of the past. Nonetheless, who is to say our solutions to these problems are not to cause more problems? Electric automobiles are branded as the future of transportation. Yet we still do not know how to dispose of the batteries when their lifecycle is complete. There is the possibility of damaging nature beyond repair, more so than fossil fuels. In addition to all this, there is the social aspect.

> It required the labour of thousands of years for us to learn a little of how to calculate the more remote natural effects of our actions in the field of production, but it has been still more difficult in regard to the more remote *social* effects of these actions. […] [W]hat is scrofula compared to the effects which the reduction of the workers to a potato diet had on the living conditions of the popular masses in whole countries, or compared to the famine the potato blight brought to Ireland in 1847, which consigned to the grave a million Irishmen, nourished solely or almost exclusively on potatoes, and forced the emigration overseas of two million more?[22]

Historical traumas such as the Irish famine show us the scale of the destruction caused by how our mastery over nature fared thus far. Technicism as discussed by Necdet Teymur presents itself as a factor. Social effects of anything is disregarded if

[21] Marx, Karl, and Friedrich Engels. *Collected Works*. Translated by Emile Burns and Clemens Dutt. Vol. 25. London: Lawrence and Wishart, 1987. p. 461.

[22] ibid. p. 462

economics were concerned. The rift between social and technical grew as the industrial growth regarded as seemingly infinite, social concerns were abandoned.

2.1.2.1. Paradigm Shift: Exclusive to Sustainable

The dominant paradigm of this era of liberal market economy was the exclusionist paradigm, which considered environment irrelevant to economics. According to this paradigm, natural resources are not a constraining factor in economic growth, excluding their effects on political-economy, hence the name, exclusionist paradigm. Chasek et al defines exclusionist paradigm as the following:

> [T]he paradigm that has dominated public understanding of environmental management during the period of rapid global economic growth in the last two centuries has been essentially a system of beliefs about economics. It has been referred to as the *exclusionist paradigm* because it excludes human beings from the laws of nature.[23]

Having environmental awareness on the rise, many scholars criticised and proposed alternatives. The concept to catch on was sustainability. And with the publication of Brundtland Report in 1987, the term sustainability gained a huge publicity. The term elaborated in the report was "sustainable development". The report is considered as a milestone in the shift from exclusionist paradigm to sustainable paradigm.

> The concept of sustainable development does imply limits - not absolute limits but limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities. But technology and social organization

[23] Chasek, Pamela S., David L. Downie, and Janet Welsh Brown. *Global Environmental Politics*. 7th ed. Oxon: Routledge, 2018. p. 29.

> can be both managed and improved to make way for a new era of economic growth.[24]

As can be seen from the definition, economic growth is to be sustained while containing environmental damage to a minimum, while emphasizing management and improvement of social organization. The said new era is no doubt an era of capitalism. Growth must be achieved, otherwise the demise of the system is inevitable. Zülküf Aydın from University of Leeds states the following on UN's 1987 report, *Our Common Future*, in his article named *Sustainable Development and Environment A Theory in the Making?*: "[A]ccording to the report poverty, which is portrayed as both the cause and effect of environmental problems lies at the root of environmental problems and the sustainable development" (Aydın, 1995, p.50). The solution proposed is eradication of poverty. Therefore, speeding up economic growth is seen is the only way to prevent environmental degradation, since the poor will not need to over-use the land to be able to compete in the market. However, these concerns are more economic rather than environmental. It is also apparent that this is a "blame the victim" approach, putting the entire blame on the poor, absolving the governments' and corporations' role in creating this scenario.

The UN took special interest in the Republic of South Africa, even before the Earth Summit 2002, which took place in Johannesburg. While apartheid was the main reason for this interest, South Africa was a promising country for economic growth. A striking example of the issue explained in the previous paragraph can be observed in South Africa, where the physical manifestations of the apartheid caused long term environmental degradation, leaving the blacks as an open target for the blame.

[24] United Nations, (1987) Our Common Future - Brundtland Report. Oxford University Press, p. 16.

> Until the presidency of Mandela, the tenure systems favoured white men, resulting in them owning 85% of land in South Africa. Black farmers were left with no choice but to get the most out of their few hectares by all means possible, regardless of environmental concerns. This caused overgrazing, loss of topsoil and erosion. […]. [B]lacks having to exploit the infertile soil for farming and whites turning towards mining and forestry on their fertile land led up to an ecological crisis as an indirect result of the apartheid. This is the apartheid's environmental legacy[25]

With such degradation deeply entwined in racially biased policies, the prescription proposed in the Brundtland Report does not even begin to cover up the whole mess. Poverty alone cannot be blamed as cause and effect of environmental degradation, since the poverty is the direct result of decades old systematic oppression of the blacks. Thus, economic growth alone – regardless of distribution of wealth – cannot provide a satisfactory answer for environmental problems. These shortcomings of sustainable development are further elaborated by Zülküf Aydın as follows:

> This haphazardly established relationship [between sustainable development and growth] does not give enough thought to the seriousness of the task and the technological difficulties involved. Similarly the contradictions of the economic growth and development experiences of the past are simply glossed over. Furthermore, as it is formulated in the Brundtland report, SD does not differentiate between the needs of developed and underdeveloped countries.

[25] Günaçtı, Hande, and Onur Lami Yalman. *Environmental Politics and Policies of Republic of South Africa*. June 11, 2017. Paper submitted to Assoc. Prof. Dr. Osman Balaban in completion of UPL 540 Environmental Politics and Policy, Middle East Technical University, Ankara. p. 3.

This quote is from a paper co-authored by Hande Günaçtı and I, in completion for the course UPL540 Environmental Politics and Policy, by Assoc. Prof. Dr. Osman Balaban in Middle East Technical University, in June 2017.

> Economic growth is deified as the only policy for eliminating poverty, and achieving environmental and developmental aims.[26]

In order for growth to be achieved, sources must be extracted from nature, be subjected to human labour with the aid of technology and must be sold as a commodity. The money from this transaction must again be put through the same process, with a higher rate of profit. In other words, the profits increase as long as nature is processed into commodities at higher rates. Therefore, what is sustained in "sustainable development" is the rate which nature is processed.

2.1.2.2. Technology as the Saviour

In an interview, Fikret Başkaya states that after the oxymoron of sustainable development had been eroded, the term "green economy" was invented (Değirmenci, 2015, p.89). Green economy, also named as green capitalism, is defined by Heather Rogers as following: "Green capitalism is an approach that says we can use the levers of the market to fix the broken environment—that's its fundamental reasoning."[27] The rhetoric of green capitalism depends on two arguments, two main levers of the market in Rogers' term. The first argument is, in order to stop the degradation of nature, it should be privatized, commodified and be included under private property. The second

[26] Aydın, Zülküf. "Sustainable Development and Environment: A Theory in the Making?" *Review of Social, Economic and Administrative Studies*, 1995. p. 51.

[27] Rogers, Heather. "The Greening of Capitalism?" The Greening of Capitalism? | International Socialist Review. Accessed December 14, 2016. http://isreview.org/issue/70/greening-capitalism.

argument is, the technology that polluted the environment is the sole thing that will reverse the situation. In the same interview, Başkaya states the following:

> The obsession with "advanced technology" has already been escalated to a point where it is regarded as some kind of religion. Whoever attempts to criticize the technology produced by/produces capitalism is deemed an enemy of technology, or even an enemy of civilization, a reactionist, puritanist… and cursed. And a blind understanding that technology will solve every problem has been radicated[28]

The said obsession with technology prevents any other approach to sustainability from surfacing. As a result, mainstream sustainability arguments are mostly one-sided, having used technology as their compass. The sanctification of technology and technicism – as discussed in *2.1. Nature* – is a direct result of the human/nature dichotomy of the bourgeois ideology. This phenomenon is explained by Necdet Teymur as the following: "Despite the secular claims of the humanist ideology, its close resemblance to the religious cosmologies is due mainly to the problematic they share. 'Human essence' opposed to the 'inhuman', A to non-A, Man to Nature (or Environment) are all structures that underlie the discourse on man" (Teymur, 1982, p.138). Nonetheless, it is a necessary blasphemy to criticize the course of action taken by many against ecological crisis, since confining sustainable architecture into a solely technical framework does more harm than good.

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[28] Değirmenci, Emet. "Fikret Başkaya ile Söyleşi: Yeşil Kapitalizm ve Çıkış." *Birikim*, no. 319 (November 2015): 90.

The quote is translated from its Turkish original by the author. The original is as follows:

> "Çoktan "ileri teknoloji" tutkunluğu bir tür din mertebesine yükseltilmiş durumda. Her kim ki, kapitalizmin ürettiği/kapitalizmi üreten teknolojileri eleştirmeye kalkarsa, teknoloji düşmanı, dahası uygarlık düşmanı, gerici, karanlıkçı… sayılıp lanetleniyor. Ve teknolojinin mutlaka her sorunu çözeceğine dair de köklü bir kör anlayış yerleşmiş durumda"

It is undeniable that technology has become a market of high value. The same could be said for sustainable and environmental technologies. Any architectural project that is currently undertaken somewhat includes such technologies. Whether it makes for great advertisement or there are genuine concerns about the environment, green technologies have become indispensable for architecture. For instance, Dubai, the design heaven of *starchitects*, houses many extravagant examples of sustainability. In a place where the sky is literally the only limit, the use of sustainable technologies is simply a way of sugar-coating the inherent problematics of Dubai. Can a highly unequal distribution of wealth that is extracted from natural resources – especially fossil fuels, the crown jewel of unsustainable energy sources – become invisible by green design?

As with any other technology, production of advanced sustainable technologies as commodities has its downsides. Advanced technology produced by capitalism has always produced results against the labourers, peasants, merchants, for the majority of the society at every stage (Değirmenci ibid). Founders of the Rhizome Collective and advocates of radical sustainability Scott Kellogg and Stacy Pettigrew explain the situation as following:

> [A] sustainable development program might propose installing a series of solar panels in a rural village. But solar panels only have about a 25-year life span, provided they are not damaged sooner, and after this period the panels are useless. Typically these projects don't consider whether or not the village will have the technical expertise, access to tools or manufacturing, or money necessary to repair or replace the panels. Without these resources the village finds itself in a position of dependency.[29]

[29] Kellogg, Scott T., and Stacy Pettigrew. *Toolbox for Sustainable City Living (a Do-It-Ourselves Guide)*. Brooklyn: South End Press, 2008. p. xii.

Based on this example, it can be said that sustainable technologies have become extensive commodities that are consumed and not recycled, and the term sustainability have become an exploitation device under capitalism. This is not a surprising outcome, considering the fact that the mainstream understanding of sustainability is the extension of "external nature", discussed in the part *2.1.1 Nature*.

2.2. The Mainstream Understanding

Although having criticized the mainstream definitions, in order not to categorically reject sustainability, certain mainstream ideas will be voiced in this section. In fact, sustainability is one of the few concepts that can bring environmentalists, capitalists, socialists etc. together. Despite the differences in definitions, sustainability is a term that is widely accepted by most, since the ecological crisis has become tangible in our daily lives, be it ozone layer depletion or climate change. Allen and Hoekstra state the following:

> [E]veryone agrees that sustainability is a good thing, and that desirable situations last longer under it. Sustainability is appealing because, despite differences as to how to achieve sustainability, both "green" environmentalists as well as those investing in commodity production favor it. […] The wide spectrum of agreement on the virtues of sustainability make sustainability a touchstone for mutual consent.[30]

Therefore, it is possible to say that sustainability is a concept that can unify opposite poles of the environment arguments. However, it is the definition of sustainability and the approach to it that drives the two poles apart from each other. The various

[30] Allen, Timothy F. H., and Thomas W. Hoekstra. "Toward a Definition of Sustainability." General Technical Report RM, no. 247 (May 1994): 98-107. Accessed June 10, 2019. AGRIS. p. 98.

definitions of sustainability by liberals and eco-socialists will be evaluated under *Chapter 4*. No matter the differences, sustainability can act as an umbrella term for environmentalist paradigms. As an umbrella term, sustainability is not a single concept. Egon Beckers et al claim that sustainability is not a single static entity, but rather a conglomeration of values, aimed at managing the distribution and reproduction of resources. In their own words:

> [Sustainability] does not refer to static qualities of societies or the natural environment, but, rather, should refer to stabilized and preserved patterns within social-ecological transformations […] hence should be understood as a valuated quality of processes, structures and systems […] by which societies manage the material conditions of their reproduction, including the social, economic, political and cultural principles that guide the distribution of environmental resources[31]

The social, economic, political, cultural principles that would guide the process of distribution are determined by the paradigms. The general structure of sustainability is however, laid out by Becker et al in three dimensions: Analytical, Normative and Strategical dimensions. Analytical dimension analyses the objective conditions on the path to sustainability, while avoiding a sharp and clear definition of sustainability in order not to stereotype sustainability. Normative dimension emphasizes the relationship between economy, society and environment. Strategic dimension implies local and global governance with participation of local actors and institutions (Becker et al, 1997, p.22). The important point to emphasize is that said dimensions imply the need of a guideline of how a definition of sustainability should be.

[31] Becker, Egon, T. Jahn, I. Stıess, P. Wehlıng. (1997) Sustainability: A Cross-Disciplinary Concept for Social Transformations, MOST Policy Papers, No.6. p. 19.

Following the proposed guideline, if one chooses to use the definition of nature as the ideological construct, sustainability can easily evolve into green capitalism, whereas an alternative definition might create another definition. The concept of nature acts as the keystone in defining sustainability.

2.3. Resolution

The understanding of sustainability as an extension of external nature leads to the collection of following ideas: Nature as an external object, is reduced to a point where it cannot sustain itself without the help of our technological advancements. Therefore, we must constantly raise the stakes in terms of technology, in order to minimize the damage done to the environment. These technologies should enhance our current lifestyles, without any compromises. Technology which caused an environmental crisis, is the sole thing to end it. Everyone should aspire to be an engineer to produce more technology, it is our only way out.

It should be stated that the paragraph above does not represent the ideas in this thesis. In fact, it is quite the opposite. Nature will always prevail, not always to our advantage. The fetishizing of technology prevents it from being criticized in any way. Our current lifestyle is environmentally destructive, the technologies should not enhance, but rather change it. Instead of making automobiles run on electric, the cities must be redesigned in a way to make private vehicles obsolete. Instead of having solar panels and consuming electric the way as usual, ways of not using electric should be explored. Instead of building a sustainable skyscraper, the necessity of building one at all should be abolished. Without a change in the contemporary urban life style and the methods of production/consumption, a sustainable future is only a dream to be sold as a commodity. Our relationship with nature, hence how this nature is defined, directly

affects how we produce and reproduce the urban space. The possibility of a sustainable architectural praxis boils down to a change in our relationship with nature. The next chapter will explore how sustainable architecture as we know it came to be, and how it relates itself to nature.

CHAPTER 3

SUSTAINABLE ARCHITECTURE IN CONTEXT: CURRENT HISTORY, THEORY, CRITICISM

3.1. Brief History of Sustainability in Architecture until the 1970s

Sustainable architecture as a concept did not emerge until the realization of an ecological crisis. Therefore, to identify examples of vernacular architecture and the use of environmental systems before the industrial revolution as sustainable architecture would be a major misconception. It is not possible to distinguish between sustainable and non-sustainable architecture practices in say, medieval times, since the difference did not exist. However, today's sustainable architecture practices derive quite a lot from the architecture of that era. In order to understand what makes them contemporary rather than archaic, history of architecture and humanity itself should be understood, since the quality and design of the much-needed shelter evolved alongside human beings and civilizations. History of architecture goes hand in hand with history of humanity, as shelter and protection are basic needs for survival. The dialectical relationship between humans and nature urged for a process of co-evolution. As humans changed their surroundings by labour, they themselves changed as a result. This is as stated by Engels is as follows: "[T]he hand is not only the organ of labour, it is also the product of labour. Only by labour, by adaptation to ever new operations, […] have given the human hand the high degree of perfection required to conjure into being the pictures of a Raphael, the statues of a Thorwaldsen, the music

of a Paganini"[32] With the skills of the early humans, fire has been domesticated, tools were created and thus, survival of human kind in the ice age was possible. And thus, a human population was able to sustain itself in the cold harsh climate of Europe.

> And the transition from the uniformly hot climate of the original home of man to colder regions, where the year was divided into summer and winter, created new requirements—shelter and clothing as protection against cold and damp, and hence new spheres of labour, new forms of activity, which further and further separated man from the animal.[33]

This newly formed life revolved around mobility and temporality, where certain grounds were chosen for habitation. The new spheres of labour allowed the hunter-gatherer societies to fabricate shelters in order to survive in the harsh weather conditions. In October 1965, the remains of the oldest known fabricated shelter, Terra Amata, was found in Nice, France. The findings suggested that this area was the springtime camping ground for a hunter-gatherer group of Homo erectus, visiting Terra Amata annually for several decades.

> The fire [in Terra Amata] suggests the gathering of the group, of the establishment of a community. […] In using fire and building artificial shelters, these humans took control of their environment, shaping it to their own convenience and requirements. The first steps toward architecture – the deliberate shaping of the living environment – had been taken.[34]

Shelter as a product of labour formed a life-style around it, changing humans in return. In his essay *The Urban Revolution*, Gordon Childe claims that history of humanity has

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[32] Marx, Karl, and Friedrich Engels. *Collected Works*. Translated by Emile Burns and Clemens Dutt. Vol. 25. London: Lawrence and Wishart, 1987. p. 454.

[33] ibid., p. 458.

[34] Roth, Leland M. *Understanding Architecture: Its Elements, History, and Meaning*. 2nd ed. Boulder, CO: Westview Press, 2014. p. 162.

three milestones. The agricultural (or Neolithic) revolution, the urban revolution and the industrial revolution.[35] These revolutions mark the shifting points in the way of living in societies. All caused formation of unique architectural habits and traits. Hunter-gatherer societies required mobility. Every person in the society had to contribute to production, whether they were leaders or children. Division of labour was not clearly defined since everyone did everything. The shelter used by these societies reflected the structure of this life: temporary huts made with readily available materials or caves. Survival was the ultimate goal. Structures were designed to withstand nature, with limited resources. Materials were scarce and construction techniques were limited. Therefore, while building against forces of nature, building with the nature was a necessity. However, it is not possible to speak of environmental systems in these types of shelters since they were meant to be only temporary. For example, dating back to 300,000-400,000 years ago, Terra Amata consisted of twenty-one huts, each having an oval plan of 7.9 to 14.9 metres length and 4 to 6.1 metres of width. Materials consisted of piled rocks, stones and branches (Roth, 2014, p.162).

With the agricultural revolution, permanent settlements came into play. "Beginning about 10,000 years ago […] the harsh climate of Europe moderated. […] A new age had begun […] and humans increasingly settled for extended periods, beginning to build permanent settlements."[36] The society could afford full-time occupations, since with agriculture, not everyone had to contribute to the production of food. Division and spatialization of labour became apparent. Shelter was still among the most basic human needs. Looking at the earliest examples of human settlements, it can be seen that Traditional architectural elements present examples of the said building with

[35] Childe, V. Gordon. "The Urban Revolution." *The Town Planning Review* 21, no. 1 (1950): 3-17. http://www.jstor.org/stable/40102108.

[36] Roth, Leland M. *Understanding Architecture: Its Elements, History, and Meaning*. 2nd ed. Boulder, CO: Westview Press, 2014. p. 162.

nature. These elements are distilled over ages, perfected with each passing generation. For instance, in colder climates, alignment of the building according to the sun was crucial. There are even entire settlements aligned accordingly in ancient Scandinavian architecture. Or if we take a look at the desert conditions of North Africa, in order to provide cooling for the buildings, ponds of water are placed in the middle of the courtyard. And with the assistance of chimneys, heat is vented out. With the abundance of resources, safekeeping of surplus products became a factor to consider. Therefore, centralization of this surplus lead to the first examples of temples and castles. While some were responsible for producing the surplus, some were responsible for the distribution. With this spatial representation of the surplus, the urban revolution came to be, thus the class divisions. Political and religious leaders, accompanied by the soldiers had privilege in the distribution of surplus. Still, nature was still an opponent, since the surplus had to be protected against disasters. For instance, in ancient Persian architecture, the Yakhchal, or ice-houses were large structures for preserving food and ice against the desert conditions. Although it was the ruling elite that enjoyed the ice in the middle of the desert sun, they still had to consider building with nature.

However, with the Industrial Revolution materials and cheap labour became more abundant. The necessity to make the most out of passive systems diminished. Buildings became significantly larger. Heating and cooling for such large areas could not be provided with passive systems alone. The lack of passive systems was compensated with actively consuming energy to heat or cool the spaces. The Crystal Palace, built in 1851 as an exposition centre by Joseph Paxton, presents one of the first examples of active environmental systems, while still benefiting from passive systems, in regulating interior air quality.

> The ability to combine mechanical environmental systems, to manufacture controlled atmospheric conditions inside large buildings tailored to specific requirements of human health and comfort, with fully-glazed structures by

> which extremely large spaces could be effectively enclosed and day-lit, offered the opportunity to make public urban life independent from the climatic variability and periodically hazardous atmospheric conditions of the open air within urban areas. Paxton aspired to totally controlled autonomous climates inside glass buildings, and never accomplished these fully in his own designs.[37]

With such abundance of energy and materials, building with nature and passive systems were mostly forgotten. Whatever that was required could be achieved with coal and oil, such was the rationalist ingenuity. Adverse effects of this building galore were yet to be seen.

3.2. 1973 Oil Crisis and the "High Tech" Era

Sustainable architecture as we know it today did not manifest itself as an environmentalist act, but rather a precautionary approach towards an imminent energy crisis. As a political turmoil, OPEC oil crisis forces the Western world to think outside the box in terms of energy. During the course of Arab-Israeli war in 1973, Arab members of Organization of Petroleum Exporting Countries (OPEC) imposed an embargo on United States, Portugal, Netherlands and South Africa in response to their support to Israel. The embargo quickly took effect as long queues of cars formed in front of petrol stations as a result of fuel shortage in the US. This revealed the dependency of US on foreign oil, thus forcing the US government to take action to reduce long-term dependency of foreign oil. The situation forced a paradigm shift, from exclusionist paradigm to sustainable paradigm, where policies which excluded

[37] Schoenefeldt, Henrik. "The Crystal Palace, Environmentally Considered." *Architectural Research Quarterly*12, no. 3-4 (2008): 283-94. doi:10.1017/s1359135508001218.

nature as a finite factor had to be dismantled, and the possibility of an ecological crisis as a result of human activity was recognized.

This first wave of shift from exclusionist to sustainable paradigm manifested itself in architecture as High-tech architecture, where extravagant solutions were offered in response to constantly increasing energy footprint. Exaggeration of structure and the complexity of the mechanical systems led to employment of large design firms, collaborating with other engineers, experts etc. An early example of High-tech architecture could be the Centre Pompidou, designed by Richard Rogers and Renzo Piano. With all mechanical systems drawing the boundaries of the building, this large structure is "architecture-as-machine elevated to the most prestigious cultural level"[38] in Leland Roth's words. However, as a "machine", it could not mark itself as green or sustainable, due to the inherent unsustainable nature of a machine. "Once viewed as a champion of Expressionistic High Tech building, Renzo Piano has redirected his practice toward climatic and environmental responsiveness".[39] Hence, as the integration of green technologies into architecture became the norm in architectural practice, a process of green-washing emerged. Green-washing is the concept of marketing a product with only small *green* changes to its origins. For example, the usage of bio-plastics or electric cars can be considered as green-washing, since they do not fundamentally challenge the environmental problems, but rather exploit the awareness around the topic for their own benefit.

> Green-washing strategies changed from corporative greening in the past to nowadays development of green urban utopias, which serve for the mainstreaming of corporations' business as usual market interests supporting the recent global urbanization processes. Furthermore, green-washing is

[38] Roth, Leland M. *Understanding Architecture: Its Elements, History, and Meaning*. 2nd ed. Boulder, CO: Westview Press, 2014. p. 577.

[39] ibid., p. 608.

practiced in the framework of urban renewal, redevelopment, and regeneration projects.[40]

Therefore, through the name of sustainable urbanism and architecture, gentrification is taking place in the urban landscape, dispossessing people of their lands. While they may serve the purpose of greening the area, social sustainability is left out of the picture, focusing solely on environmental and economic sides. The environmental side is however, a result of the economic concerns.

What has become of sustainable architecture today is an interesting subject. Sustainability in architecture has been subjected to intense reductionism. Mass produced buildings are decorated with the adjective "sustainable" for higher revenue. The large-scale production of luxury houses as commodities has intensified the competition in the housing market, driving the sector towards a search for upping their hands. Sustainability comes into play as an added value. In order to prove the sustainability of the building, certificates recognized worldwide, such as LEED and BREEAM are utilized as objective and scientific tools of measuring sustainability. "The LEED standards are intended to produce 'the world's greenest and best buildings' by giving developers a straightforward checklist of criteria by which the greenness of a building can be judged"[41]. With the help of LEED and BREEAM's straightforward checklist, the idea of sustainability in architecture is reduced to pure technology such as solar panels and HVAC. Just like the produced technological

[40] Schuetze, Thorsten, and Lorenzo Chelleri. "Urban Sustainability Versus Green-Washing—Fallacy and Reality of Urban Regeneration in Downtown Seoul." *Sustainability* 8, no. 33 (December 30, 2015): 1-14. doi:10.3390/su8010033.

[41] "The Rise of the Green Building." The Economist. December 02, 2004. Accessed December 01, 2016. http://www.economist.com/node/3422965.

commodity, sustainable architecture becomes a commodity through this process of reduction.

Another award given to green projects is Top Ten Green Projects Awards, and it has an evaluation criterion of ten measures: Design and Innovation, Regional/Community Design, Land Use and Site Ecology, Bioclimatic Design, Light and Air, Water Cycle, Energy Flows and Energy Future, Materials and Construction, Long Life, Loose Fit, Collective Wisdom and Feedback Loops. (Damati, 2013, p. 26) Among all these technology related subjects, the measure number two, Regional/Community Design stands out. Under that title, the measure is explained as "In a specific region or community, the role and importance of sustainable design in conservation of cultural and natural characteristics of the site is represented" (Damati, ibid). The vague expression of community opens the way for different interpretations of the term, which is usually interpreted as a healthy and green community aimed at upper-middle class life styles. Fitting the whole vast subject of sustainability into ten measures would inevitably allow different interpretations with heavy bourgeoisie bias, not to mention the awards being used as a marketing strategy.

As a result of this reductionist approach to sustainability, self-conflicting terms such as "sustainable skyscraper" emerge. It is quite possible to design a sustainable skyscraper from a technology point of view. However, immense effort, time and money are needed to transform an inherently unsustainable structure into sustainable architecture. This attempt is nothing more than sugar-coating the materialization of capitalism in the form of architecture. Another similar example would be luxury housing. Luxury housing is a concept which would be considered a representation of architecture as commodity at its best. Considering the case of Istanbul, high-rise luxury residential blocks built in gentrified areas and low-rise luxury communities built in privatized state-owned forests are the newest form of extracting urban rent. As

the competition in the housing market intensifies, sustainability has become an added value for the residential projects. From organic consumption to an individualistic environmental protection strategy, environmental awareness has become an object of consumption for the middle and upper-middle classes. At the same time, the fear created about the environment becoming no more habitable, creates the ideological medium to serve fascist and authoritarian practices if necessary (Balta and Mısır, 2011, p. 22). The success or failure of implementation of the sustainable technologies is not relevant to the subject at hand. The point raised here is the fact that socially and environmentally unsustainable practices such as gentrification and creating settlements in forest lands, reflect the real image of neoliberal urbanization and no amount of sustainable technology would make them truly sustainable.

In order for architects to implement sustainability in their designs, they must first thoroughly understand sustainability itself. As noted in American Institute of Architects' 2006 report on Ecological Literacy in Architectural Education, architects tend to believe that there is a universal consent on the definition of sustainability. [42]

> If sustainability is a vague term, sustainable design presents an even greater challenge. Many architects use the term as if it applies only to buildings and not to all of human enterprise […] Because architects typically think of sustainable design as merely high-performance building, pedagogical methods emphasize technology.[43]

Therefore, to clear the vagueness around the topic, the next chapter will focus on three paradigms on sustainability and ecology. With a clearer understanding of sustainability, an architectural praxis can be formed by the architects.

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[42] Gould, Kira and Hosey, Lance. Ecology and Design: Ecological Literacy in Arcitectural Education, 2006 Report and Proposal. American Institure of Architects, 2006.

[43] ibid., p. 15-16.

CHAPTER 4

THREE CURRENT PARADIGMS ON SUSTAINABILITY

4.1. Appropriation of Sustainability

To the noblemen living in grand castles it would have been unimaginable that their end would come from below. Yet the French revolutionaries did it. During the time of the French Revolution, nationalism was a revolutionary idea, and it was the bourgeoisie who accomplished such a feat. It changed the world to say the least. Considering bourgeoisie's current disposition, it is quite possible to say that some aspects of bourgeoisie and nationalism did not survive. What is meant by some aspects is of course, their revolutionary potential. In fact, revolution gave its place to oppression.

Any progressive idea that has been put forth has attempted to create its own hegemony, losing its revolutionary capacity, succumbing into counter-revolutionary acts. This is an act of self-defence. If progression continues, they will be removed from power. Counter-revolution follows revolution, in an attempt to stay in power. Therefore, progressive, revolutionary movements have been appropriated by capitalism, and converted into a commodity, open for consumption, for if they retain their revolutionary potential, they are dangerous adversaries. Stripped from their progressive abilities, they are valuable assets. If we look at the avant-garde of the 20th century, it is quite apparent that once a revolutionary form of expression, became an object of desire for the petite-bourgeoisie. In his article published in 1980, Eric Hobsbawm states the following on avant-garde:

> As capitalism emerged from its crisis to flourish and expand, it appropriated and absorbed the arts of the revolutionaries. The comfortable and cultured middle class, the industrial designers, took it over. […] The nearest that Morrisian town-planners got to their people's cities were 'garden suburbs', eventually occupied by the middle class and 'garden cities' remote from industry.[44]

This phenomenon is not only limited to arts, design or architecture. In the political arena, the same phenomenon manifests itself in identity politics. Although the rising militancy of the LGBT movement, feminist movement and national/racial identity movements, can be considered under a positive light, the fact that they seek solution within the current system proves problematic. With more fronts available for people to express themselves, the connection and solidarity with the labour movement diminished. Hence, we are left with liberal identity politics, devoid of solidarity, overruling politics based on class struggle, ultimately undermining it.

How does all this relate to the matter at hand? What does this slight detour say about sustainability and sustainable architecture? The simple answer is, sustainability was one of the said progressive ideas. As discussed in chapter *2.1.2 Sustainability*, Rachel Carson's 1962 book raised awareness about environmentalism, which found itself a certain place in 1968 protests, especially in the US. Sustainable architecture at its core, had the potential to revolutionize the way humans relate to nature. With the oil crisis of 1973, it became apparent that it was not possible to sustain business as usual. The search for alternatives popularized Lefebvre's critiques of urban living. Along with this new approach to urbanism, several different approaches to ecology – or in their words, *ecosophy* – were formed, most prominent advocates being Félix Guattari and

[44] Hobsbawm, Eric J. "Socialism and the Avantgarde in the Period of the Second International." *Le Mouvement Social*, no. 111 (1980): 189-99. Accessed October 23, 2018. doi:10.2307/3778015. p. 199.

Arne Næss. Yet sustainable architecture became a mere piece of the urban landscape. Born from inside such an intellectually diverse area, sustainability has received its share of being appropriated by capitalism. Therefore, the argument is not as simple as "you are either for, or against sustainability". To answer the question: "Are you for or against sustainability?", one must reply with another question: "Which sustainability?".

4.1.1. Environment and the Working Class

Aforementioned in previous chapters, sustainability has been overused to a point of vagueness, with the help of non-political agendas of many ecologist NGOs and institutions. Stripped from its revolutionary cutting-edge, it becomes a part and parcel of capitalism. In the words of Teymur:

> 'Environmental policies' that are declared to cure the 'environmental problems' benefit those who are already in control of the problem areas and who already benefit from a mode of production with whose undesirable effects people live. So-called 'environmental movements' are basically conservative rather than revolutionary, mystic rather than rational and technical. When such movements become part of the established mechanism they retain their theoretical naivety while attaining a more profound ideological effectivity.[45]

The problem areas and the undesirable effects with which people live, as stated by Teymur, refers to the climate change the world is experiencing as a result of the decades of abuse under capitalist mode of production. It is a fact that the working class

[45] Teymur, Necdet. *Environmental Discourse: a Critical Analysis of "Environmentalism" in Architecture, Planning, Design, Ecology, Social Sciences, and the Media*. London: ?uestion Press, 1982. p. 166.

will be the one to be affected most from the adversary effects of climate change. In his article named *There's No Such Thing as a Natural Disaster* (2006), written after the devastating hurricane Katrina that laid waste to the east coast US, Neil Smith claims that: "[T]he contours of disaster and the difference between who lives and who dies is to a greater or lesser extent a social calculus" (Smith, 2006, p. 1). In the case of hurricane Katrina, it was the marginalized working class black people who took the blow the most. The cruel social calculus was rigged against the blacks for the most part. Of course, this outcome is only one end of the equation. On the other end lies the Bush administration and Federal Emergency Management Agency (FEMA), mostly to blame for the outcome. While the wealthy residents of the area were able to leave with their private vehicles before the hurricane hit, the poor and people with limited mobility could not, and in fact were prevented from leaving.[46]

Therefore, in the current state of our world**,** environmental politics cannot be considered apart from class struggle. Just as working class stands in the receiving end of the ecologic crisis, the global south also gets a fair share of environmental problems. Most cities of the global north aspire after urban sustainability. The ones closest to success are presented as examples to be followed by the rest. However, it is usually overlooked that these cities have been going through a quest of urban sustainability alongside extensive de-industrialization. With most of their traditional industry relocated towards the global south over the last few decades, the cities of global north have been going through a shift in terms of sustainability. On the one hand their environmental problems are greatly reduced thanks to de-industrialization. However, on the other hand, social sustainability suffers as unemployment peaks, and most of these societies are being subjected to politics of austerity in the wake of the global financial crisis. Nonetheless, this relocation allows these countries to shift blames to

[46] Smith, Neil. "There's No Such Thing as a Natural Diasaster." Understanding Katrina. June 11, 2006. Accessed 2015. http://understandingkatrina.ssrc.org/Smith/.

newly industrializing developing countries. In other words, the global north attempts to solve their environmental problems by exporting these problems to developing countries. In that sense, it is not a realistic approach to expect say, Beijing to become Oslo, and blaming China for not implementing environmentally sensitive policies. This blame the victim approach as a result causes inaction on the part of many politicians of the states of global north in terms of global environmental politics.

4.2. The Three Paradigms

Deeply entwined in political economy and international affairs, the survival of the word sustainability under capitalism is up to debate. For the sake of the main problematic of the thesis, three most prominent stances on sustainability will be examined: liberal, eco-socialist and Marxist paradigms. The criterion for choosing these three is the fact that they can be viewed under the light of political economy. Therefore, for example, deep ecology (or ecosophy) of Arne Næss, will not be treated under a new title.

4.2.1. The Liberal Paradigm

The first paradigm to be examined is the liberal paradigm, which has undergone many changes since the dawn of capitalism. With every major crisis, it has found its way around the contradictions of capitalism. Whether it was the Keynesian economics in response to the Great Depression, Neo-liberalism in response to state interventions in the market, the roll-out phase in response to the adversary effects of the roll-back phase, and, green economy in response to the ecological crisis. Hence, green economy/green capitalism can be examined under the liberal paradigm. How then, liberal economists define green economy?

> To simply define green economy; 1- aims to reduce mankind's destructive interventions on nature to a minimum, thus ensuring the permanency of life and human civilizations on the world; 2- while rejecting the dogma of economic growth and development; 3- being close to the earth and against large scale in accordance with the understanding "small is beautiful", in harmony with nature and is the understanding grounded on production-consumption in human scale[47]

This simple definition reveals quite a lot about green economy. "Reducing mankind's destructive interventions on nature" is an understatement and an overstatement at the same time. It is an understatement because simply reducing may not be enough to ensure permanency of life. In fact, it proved to be less than enough, according the Intended National Determined Contributions (INDC) data which has been submitted to UNFCCC held in Warsaw in 2013, and in the following conference in Paris 2015. Intended to keep the global temperature rise under 2°C, the countries have agreed to submit their INDC data to calculate an estimate. However, in the great scheme of events, the goal of 2°C seem further away. "Reducing mankind's destructive interventions on nature" is also an overstatement, since by agreeing to the word "mankind" we all agree to share the blame on the interventions, although it is evident that since the industrial revolution, the ruling classes became more and more destructive over their excursions on nature.

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[47] Aşıcı, Ahmet Atıl, and Ümit Şahin, eds. *Yeşil Ekonomi*. İstanbul: Yeni İnsan Yayınları, 2012: 24.

The quote is translated from its Turkish original by the author. The original is as follows:

> "Yeşil ekonomi en basit tanımıyla; 1- insanın doğa üzerindeki yıkıcı müdahalelerini en aza indirmeyi ve bu sayede dünyadaki canlı yaşamın ve insan uygarlıklarının kalıcı olmasını sağlamayı amaçlayan; 2- ekonomik büyüme ve kalkınma dogmasını reddederken; 3- "küçük güzeldir" anlayışı çerçevesinde devasa ölçeklere karşı toprağa yakın, doğayla uyumlu ve insani ölçekte üretim-tüketim ilişkilerini temel alan anlayıştır"

The second thing to be deduced from this definition is that it denounces growth and development as a dogma, and promotes production and consumption in human scale. As a governance practice, these principles have manifested itself as the *Cittaslow* movement, where the overall life is slowed down to a humane pace, and emphasis is put on locally produced goods. Many participant towns in Italy, Turkey, and all around the globe, have benefitted from the movement economically, since it gathers great support from ecological tourists. However, economic growth was never in the level of those embedded in the urban landscape. "Small is beautiful" only to those not in cities. Economic growth for the cities in the current mode of production is actually a dogma. In fact, it is made clear that this rejection of economic growth is not categorical:

> Green Economy, does not reject economic growth categorically. It claims that with the investments and incentives given to the private sector by the state, sustainable energy based, more labour-intensive sectors can replace carbon based sectors which have been the driving force of development. As can be seen, Green Economy does not have such an idée fixe that only the state should be generating employment and investments, it advocates for the success of this transformation within the market system by the private sector corporations[48]

Even if it may seem like a contradiction, this is due to the eclectic nature of this paradigm and the attempt to make it into an all-encompassing idea, regardless of scale. Being the mainstream paradigm in in sustainability discussions, it attracts many scholars with seemingly contradictory ideas. Although being quite eclectic in terms of

[48] ibid., p. 48. The quote is translated from its Turkish original by the author. The original is as follows:

> "Yeşil Ekonomi, ekonomik büyümeye kategorik olarak karşı çıkmaz. Devletin yapacağı yatırımlar ve özel sektöre vereceği teşviklerle büyümenin motoru olagelmiş çoğunlukla karbon temelli sektörlerin yerini yenilenebilir enerji temelli, daha emek-yoğun sektörlerin alabileceğini iddia eder. Görüldüğü gibi, Yeşil Ekonomi'nin yatırımları ve istihdamı sadece devlet yaratmalıdır diye bir takıntısı yoktur, piyasa sistemi içerisinde özel sektör firmaları eliyle de bu dönüşümün başarılabileceğini savunur"

principles, the main principle is that tools of the free market economy is the key towards a sustainable future. The scholars of this paradigm have reached a consensus that business-as-usual state of capitalism is not able to solve the environmental crisis. While mainstream economics treat welfare as an add-on, social justice is inherent in green economics. In addition, green economics has an inherent bottom-up approach, instead of top-down, since it arose from a need for environmental sustainability.[49] Therefore, to sum up the common points advocated:

> A sustainable life rises on three pillars: economic, social and ecologic sustainability. The last crisis we've endured demonstrates that economic growth based politics have failed. So, are we going to shut the factories down and let the workers on the streets in an attempt to protect the environment? On the contrary, economic growth, ecologic balance and social justice are not causes that contradict with each other[50]

In the excerpt above, eco-socialism and Marxism is indirectly criticised, since according to them, growth based economy and ecologic balance cannot co-exist. The negation of this conflict by the liberal paradigm may also be in attempt to present itself as an alternative to the destructiveness of conventional capitalism, hence, a competitor of eco-socialism and Marxism in terms of ecology.

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[49] Cato, Molly Scott. *Green Economics: An Introduction to Theory, Policy and Practice*. London: Earthscan, 2009. p. 5.

Cato's book on green economics is the self-proclaimed first book to put together various contributions to the field into a coherent whole.

[50] ibid., p. 106. The quote is translated from its Turkish original by the author. The original is as follows:

> "Sürdürülebilir bir yaşam üç ayak üzerinde yükselir: ekonomik, toplumsal ve ekolojik sürdürülebilirlik. Yaşadığımız son kriz iktisadi büyüme odaklı politikaların iflas ettiğini gösteriyor. Peki çevreyi koruyacağız diye fabrikaları kapatıp işçileri sokağa mı salacağız? İddia edildiğinin aksine ekonomik büyüme, ekolojik denge ve sosyal adalet birbiriyle çelişen amaçlar değildir"

4.2.1.1. The Reformists

Being critical towards the system based on growth, and having distanced themselves from transformist approaches such as eco-socialism and Marxism, the reformists take up a unique position among environmental discussions. This position is mainly voiced by UNEP (The United Nations Environment Programme) and scholars with a similar approach. In *Handbook of Green Economy,* Balaban states the following:

> [T]he economic system, which is based on continuous GDP growth, has failed to improve social well-being and reduce inequality. The high levels of growth in global output as well as national GDPs in many economies did not result in equal or fair outcomes for individuals and societies.[51]

Acknowledging the problematic outcomes of a growth based economy, the reformists propose a smooth transition to a green economy which is heavily dependent on advanced technology and ingenuity. By utilizing technology, ecology and economy can both thrive as a result of increased efficiency.

> [T]echnological revolution can play [a role] to reconcile sustainability and economic growth by means of a range of innovations to reduce material and energy consumption and increasing the proportion of services and intangibles in GDP. So, to a great extent, green economy is associated with creativity and innovation.[52]

With the support of an established organization such as the United Nations, the reformists push for a smoother shift to a sustainable world, unlike the transformists such as eco-socialists, who strive for a hard change, and a once and for all solution.

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[51] Balaban, Osman. "Smart Cities as Drivers of a Green Economy." In *Handbook of Green Economics*, 69–92. Elsevier Academic Press, 2019. p. 69.

[52] ibid., p. 73.

4.2.2. The Eco-Socialist Paradigm

The supporters of the liberal paradigm usually shy away from mentioning any form of class struggle. The main focus is on sustaining the economy without too many compromises. As elaborated in the chapter *2.1.2 Sustainability*, main focus is on poverty. Poverty is seen as both the cause and effect of environmental problems. Although it is evident that disasters affect the poor most adversely, instead of a permanent solution, poverty is deepened by creating a society dependent on aids and subsidies. Not only this does not help solve poverty, it deepens poverty and makes it permanent. In addition to the said problems, *Nature* and *Sustainability* used in this paradigm's context is, as discussed in *Chapter 2*, the direct descendant of the rationalist dualism that formed the bourgeois ideology. Luckily, other paradigms exist that challenge this situation, one of them being eco-socialism, which will be the topic of this section. Then the question shall be, "What is eco-socialism?". One of the writers of *The Ecosocialist Manifests*, Michael Löwy, defines it as follows:

> What […] is ecosocialism? It is a current of ecological thought and action that appropriates the fundamental gains of Marxism while shaking off its productivist dross. For ecosocialists, the market's profit logic, and the logic of bureaucratic authoritarianism within the late departed "actually existing socialism," are incompatible with the need to safeguard the natural environment. While criticizing the ideology of the dominant sectors of the labor movement, ecosocialists know that the workers and their organizations are an indispensable force for any radical transformation of the system as well as the establishment of a new socialist and ecological society.[53]

To sum up the basic premise of eco-socialism, dismantling capitalism and any growth based productivism is the only condition under which the world can survive, and the

[53] Löwy, Michael. "What Is Ecosocialism?" Translated by Eric Canepa. Capitalism Nature Socialism 16, no. 2 p. 18 (June 2005): 15-24. Accessed November 23, 2016.

labour class is the power to achieve such change. Eco-socialism, while criticising orthodox Marxism's blunt views on protection of natural resources, claims to present alternatives to existing ecologic approaches (Orhan, 2011, p.33). Therefore, it not only opposes reformist market economy, but also "productivist" socialism. The basic premises of eco-socialism are summarized in 5 points by Löwy. The first one is the criticism of bourgeois rationality. As covered in *Chapter 2* challenging this ideology is crucial for building a sustainable praxis. According to Ecehan Balta and Mustafa Bayram Mısır, certain green critics take Adorno and Horkheimer's passage below as a criticism of Bacon's mastery over nature utopia (Balta, Mısır, 2011, p. 17):

> The enslavement to nature of people today cannot be separated from social progress. The increase in economic productivity which creates the conditions for a more just world also affords the technical apparatus and the social groups controlling it a disproportionate advantage over the rest of the population. The individual is entirely nullified in face of the economic powers.[54]

The same critics may as well claim that Marx and Engels also exist within the same utopian realm, which they criticize as the "productivist dross". It should be noted that this is the main diverging point between eco-socialists and Marxists, thus the reason for two separate sections in this thesis for them to be evaluated under.

The second and third points raised by Löwy are that the ecologic crisis is the natural limit of capitalism, and green capitalism is not a viable option against the ecologic crisis. The survival of capitalism depends on production of surplus value, hence, dependent on growth. Therefore, capitalism inherently is incapable of ecologic sustainability. The dependence of capitalism for rapidly consumed, non-renewable,

[54] Horkheimer, Max, and Theodor W. Adorno. Edited by Gunzelin Schmid Noerr. Translated by Edmund Jephcott. Stanford, California: Stanford University Press, 2002.

non-recyclable goods contradict with the essence of sustainability. It is apparent that any attempt to force capitalism to be sustainable deepens the crisis of capitalism (Engert et al 2011, p.5). Therefore, remaining two points by Löwy are an attempt to present an alternative solution: internationalism, and democratic, self-governing socialism. Ecologic crisis is a phenomenon that knows no borders or countries. However, not every governing body contributes to deepening of the crisis. Nor, they all are affected equally from it. Global summits held by states of the world are as a result ineffective, as they all act on the instinct of protecting the interest of their own bourgeoisie and state apparatus.

4.2.3. The Marxist Paradigm

Marxist ecologists differentiate themselves from eco-socialists in their approach to Engels and Marx's theories on nature. John Bellamy Foster and Brett Clark inspects eco-socialism in two stages, first stage eco-socialists and second stage eco-socialists. First stage eco socialists are discussed in *4.1.2. The Eco-Socialist Paradigm*. Marxist ecologists on the other hand, are classified by Foster and Clark as the second stage eco-socialists. First stage eco-socialists accept Marx's contributions to ecology up to a point, while finding it partial and criticizing it for presenting the productivist approaches. Their claim is that Marx derives his views on nature based on Bacon's mastery over nature utopia, therefore, not entirely differentiating itself from the bourgeois ideology. [55]

[55] Foster, John Bellamy, and Brett Clark. "Marksizm ve Ekolojinin Diyalektiği." *Monthly Review*, no. 3 (August 2017): 15-33.

Second stage eco-socialism, or Marxist paradigm in the context of this thesis, on the other hand, emphasize the methodological importance of Marx's value and commoditization theories as a basis for a critical approach to ecology. According to Foster, the false interpretation of Marx's views on social production of nature and the concept of metabolism has created a crude monist perspective on ecology. Foster forms his argument against this monism, as well as liberal approaches to nature. In chapter *2.1.1 Nature*, it was discussed that the conception of nature has become an extension of the bourgeois ideology, based on dualism. The dichotomy of internal and external nature that can be overcome by rational thinking has formed the basis of western bourgeois ideology. For Neil Smith, this ideology of nature, therefore dualism must be opposed in order to form an argument against capitalist production of nature. This opposition to dualism is thus called 'monism' by Foster. As a result, we encounter a rift among the leftist ecological perspectives. Foster accuses Smith for being reductionist and idealist, hence, conflicting historical materialist ecology, even though acknowledging the heavy Marxist influence in Smith's work. According to Smith "[N]ature is nothing if it is not social"[56]. Therefore, nature is reduced to social, and any conflict between capitalism and nature takes place through the social. Thus, any view which implies that commodity production disrupts basic ecologic function is marginalised. As Foster and Clark advocates, what is required is neither dualism, nor monism, but dialectics, to acknowledge that natural processes can be sustained without human input, while human-nature interactions have the capacity to transform one another. With this dialectic approach, one can easily argue for autonomy of nature from the social.[57]

[56] Smith, Neil. Uneven Development: Nature, Capital, and the Production of Space. Athens, Georgia: The University of Georgia Press, 1990. p. 47.

[57] Foster, John Bellamy, and Brett Clark. "Marksizm ve Ekolojinin Diyalektiği." *Monthly Review*, no. 3 (August 2017): 15-33.

Hence, Marxists draw a distinct line apart from the idealist or romantic ecologists. While being against the anthropocentrism of dualism, the idea that the etymology of the word environment derives from *surroundings*, is a romantic approach which places human beings as a natural part of ecology. This is the sort of monism that reduces natural to social and vice versa. On the other hand, Marxists claim that nature and human beings should be evaluated within a dialectic framework, while refusing the bourgeois dualism and romantic monism. Therefore, the main point of quarrel between the first stage eco-socialists and Marxists is this difference of approach in human-nature relationship.

4.3. Paradigms and Spatial Practices

Architecture and urbanism has always been a subject fuelled by contemporary discussions in philosophy, art and politics. Russian Avant-garde constructivism has immensely inspired 20th century architecture. The opposite is also applicable. Architecture can serve as spatial analogies to philosophers, i.e. the Panopticon as used by Foucault. Or the construction of a state funded dormitory can lead to a political stalemate between the rectorate and the university students. Therefore, the complexity of architecture as a field makes it virtually impossible to separate its components as politics, arts, philosophy, technics, etc. As one of the areas which architecture derives from, the area of sustainability is quite rich in terms of paradigms and theories. However, when it comes to sustainable architecture, the liberal paradigm has triumphed over the others. This section will provide a general overview of paradigms' approaches to spatial practices.

4.3.1. Smart Cities

A term that green capitalism, orthodox liberal or reformist likewise, puts forward is the smart city. Smart cities consist of highly advanced networks of data and aim for increased efficiency. The concepts revolves around the idea of IoT, the internet of things. By involving everything, including the houses themselves, in the network, an internet of things is created, resulting in data transfers and optimizations at the speed of light, not bound by space. Balaban describes the smart city as the following:

> Smart city is, in a sense, the city, where almost all key components of the urban system are connected and integrated to each other in strong ways. Enhanced and widespread connections of the system components create synergies and optimize the system performance, which bring about efficiency increases and significant savings.[58]

Focused on advanced technology, and fast-paced data transfers, smart cities aim to transform the city into a network of things. As a proposition of the dominant paradigm, smart cities have found wide application in spatial practices. From utopian projects to areas with high revenue, smart cities and smart houses are applied as an added value to the profitable projects. Essentially, smart cities act as the driving force of green economy and strives for fundamental change in urban land use planning. While developing new urban spaces, existing ones are to be renewed in accordance to a transition to a green economy. For example, in order to reduce commuting distances, mixed-use quarters are envisioned. In addition, the use of greener vehicles in public transport is encouraged.

[58] Balaban, Osman. "Smart Cities as Drivers of a Green Economy." In *Handbook of Green Economics*, 69–92. Elsevier Academic Press, 2019. p. 80.

4.3.2. Eco-Socialist Urban Housing

While smart cities may improve the life of a wealthy minority, eco-socialist views on urbanism focus on quality of life and fair income for all people. As a rather new approach as a framework, eco-socialism has limited sources on urbanism. However, to sum up their general approach to urban problems and spatial practices:

> Ecosocialism concentrates on quality of life as well as income for working people. "Agglomeration benefits" – the economic, cultural and environmental benefits of concentrating and enhancing the central areas of large cities – are very real. Although some will always prefer a suburban big back-yard lifestyle, the cultural benefits of living in a teeming, vibrant, culturally rich community should be open to all working people.[59]

By enabling the working class to actively participate in the vibrant atmosphere of urban living, eco-socialists aim for an egalitarian city. The way to achieve a such community is by promoting urban housing and fighting against housing shortages. Instead of creating new urban areas at the outskirts of the city for affordable prices, ultimately creating a housing bubble, affordable high-density housing should be created in the central part of the city. By preventing urban sprawl by concentrating on the centre, agricultural or forest lands are preserved. This pro-worker, pro-environment approach is named *up, not out*. "It's time to put an end to economic apartheid, and bring working people back into the centre of our urban life and culture – where they belong. The only way we can all fit sustainably is by growing our cities upwards".[60]

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[59] "Urban Housing Is an Ecosocialist Issue." FightBack, February 13, 2015. https://fightback.org.nz/2015/02/13/urban-housing-is-an-ecosocialist-issue/. Accessed September 13, 2019.

[60] ibid.

4.3.3. Urban Political Ecology

Urban political ecology is a field where Marxist approach to the urban problem is predominant. With the emphasis on the term *metabolic rift,* Marxist ecologists approach the urban problem from a class struggle perspective.

> Marx […] explored how socio-natural capitalist metabolism and its associated production of new socio-natural conditions nurtured a metabolic rift between city and countryside, whereby soil exhaustion and socio-ecological decay in the rural domain was the flipside of the accumulation of waste, excrement and unsustainable development in the capitalist city.[61]

The metabolic rift refers to the fact that product coming from the rural gets absorbed in the urban, disrupting the ecological balance.The emphasis is on that how techno-manegerial attempts to convert urban living into a more sustainable one actually deepens the problem, and "heightens uneven socio-ecological apocalypse that marks the contemporary dynamics of planetary urbanization".[62] As a privilege of the wealthy urbanite, sustainable urban living does not promise a better future for the lower classes. Sustainable urban living has become a commodity for the wealthy, while the urban poor can barely afford housing. Therefore, while it is not possible to speak of a concrete spatial example of Marxist political ecology, the school of thought provides a serious theoretical framework for urbanism and architecture.

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[61] Swyngedouw, Erik, and Maria Kaika. "Urban Political Ecology. Great Promises, Deadlock… and New Beginnings?" *Documents d'Anàlisi Geogràfica* 60, no. 3 (February 2014): 459–81. https://core.ac.uk/. p. 463.

[62] ibid., p. 462.

4.3.4. Beyond the Paradigms

As an area that is most open to interdisciplinary lines of thought, architecture has the potential to create a type of architectural practice that is fueled by the immense theoretical background provided by both architectural theory and other disciplines. However, only sticking to the technical aspects and actively attempting to de-politicize architecture creates a discipline that is blind to social change and ultimately limits its creativity. Having an understanding of political economic paradigms will not only enrich architectural practice, but also broaden the search for a better future. By involving economics, politics and society as a whole into architecture, an architectural practice is made possible that is neither purely technical, nor purely theoretical. Sargın defines this practice as *praxis* and explains as such: Praxis cannot be reduced to absolute making/architectural practice; therefore, it distinguishes itself from plain action or practice. On the other hand, it is also different than theory as a result of the impossibility of its abstraction from material properties. Praxis is above what it abstract and concrete. It is the result of a conscious design. [63]

Therefore, an architectural praxis requires theory. Architectural praxis requires architects to provide a theoretical bachground that is both interdisciplinary and progressive. The aim of *Chapter 4* was to introduce different approaches to the problem of sustainability, ranging from Liberal to Marxist paradigms. The following chapter will explore further the topic of praxis, and attempt to provide a framework for architects to be able to form a praxis, starting from the conception of architect as a worker, and architecture as intellectual labour.

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[63] Sargın, Güven Arif. "Mimari Praksis: Etik, Toplumculuk Ve Direnç[1]." mekân_praxis, October 16, 2015. https://gasmekan.wordpress.com/2014/09/28/mimari-praksis-etik-toplumculuk-ve-direnc1/. Accessed on 18 August 2019.

CHAPTER 5

CONCLUSION

5.1. Architect as Worker[64]

History of art and architecture have gone hand in hand throughout history. Much like the commissioned artist of the Renaissance era, the architect has been perceived as an artist of a larger scale. The role of the architect was to create masterpieces for the wealthy, in turn giving them a special status in the society. And as the Industrial Revolution proliferated the construction sector, for there was an increasing demand for labour and labourers, mass production became the norm. Architects' role evolved into an intellectual labourer who organizes spaces of production and consumption. Richard Biernacki remarks that: "For the moment we seem to inhabit an era of "creatives," the modish term that assembles into a class the urban professionals whose engagements in architecture, design, graphic arts, and more seem to unfold from individual artistry".[65] The transition from gods and muses to creativity happened with the enlightenment. As the artists were liberated from wealthy patrons and dependent on the market, intellectual work transformed into a type of wage labour. This transformation created a market on its own, solely to increase the efficiency of the artist, or specifically the author in Biernacki's case. The purpose of this market was to

[64] This chapter has evolved and taken its final shape as a result of the discussions and readings that took place in the course *ARCH 526 Politics and Space* by Güven Arif Sargın in 2017-2018 Fall.

[65] Deamer, Peggy, ed. *The Architect as Worker: Immaterial Labor, the Creative Class, and the Politics of Design*. London: Bloomsbury Academic, 2016. p. 30.

create an ideal environment to cultivate artists' creativity, and expanding their limits of productivity. This form of romanticised creativity became a prerequisite attribute in an intellectual worker. However, the need for "creativity" easily overshadows the fact that, for example in the case of architecture, mass production and mass design of buildings is an economic requirement of the capitalist production, rendering the architect as a mere worker in the process.

However, the idea of architects being workers did not resonate among the architects. They preferred to stick to the idea of architect as a creative individual, rather than a collective worker. Peggy Deamer states the following on the architects' dilemma:

> We know we are producing an object (indeed, a big one) but we don't like to think that we produce a "commodity." We compare ourselves to doctors and lawyers, but believe our work is too creative and culturally significant to be properly filed under "service sector." Consequently, we fail to conceptualize our work as work.[66]

Architects are not the only group to fall into this misconception. Main reason for this is the general understanding of *work* as manual labour. Intellectual labour is not considered as a type of work, even if it is still paid work. Individual creativity put into work somehow creates a curtain around the commodity, protecting it from the fact that it is an actual commodity. The word individual acts as the keystone of this whole arch. As a result, an emphasis is put on individual artistry. Regardless of what architecture is seen as, either as art or work, it plays within the field clearly defined by market relations. An architect to physically produce a building without the state and the market being involved simply is not possible. Thus, architect is in fact a political subject. Although saying that creativity is not involved would be foolish, over-

[66] ibid. p. 61.

estimating the limits of creativity would blind us from the world itself. For a clear understanding of the discipline as a whole, architects must move away from the 18th century enlightenment period romanticized conception of creativity and come to terms with the fact that architecture is intellectual labour. An example of the concrete execution of this comprehension would be the American Institute of Architect (AIA) identifying itself as an organisation of workers, proposed by Peggy Deamer. In conclusion, architects should proudly accept their status as political subjects, and the architectural education should be geared towards instilling this matter in the students. Otherwise the only progress in architecture will solely be in terms of technology, and nothing more.

> The mass-worker had no personal attachment to his or her work –the only interest was the wage– and his or her slogan was less work and more money. In this, the resultant detachment between life and work was defined by the Operaists as the "refusal of work", not a strike but the progressive abolition of work as a necessity for living. The goal of the refusal of work was to disengage the workers' income from wages determined by the capitalist to make profit. Within this theoretical framework, uncontrolled hedonism even in the brutal and alienated form of mass-consumption was interpreted by the Operaists as a potential social force that, if exacerbated, would open the gap between the workers' income and capitalist profit, and thus workers and capital[67]

Sustainable architecture is a necessity considering the environmental destruction that has been adversely affecting millions around the world. However, sustainability must be well-defined and the steps leading to sustainability must be taken correctly. For this reason, architects must have a collective willpower. If architects are expected to take part in a project which is inherently unsustainable, they should be able to refuse it. Architects should exercise their workforce in order to enforce a sustainable praxis.

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[67] Deamer, Peggy, ed. *Architecture and Capitalism: 1845 to the Present*. New York: Routledge, 2014. p. 140.

The current bourgeois life style is not sustainable. The solution is not greenwashing luxury villas or skyscrapers. Or producing electric cars without reducing dependency on cars. This is essential for both sustainability, and architects' struggle as workers. Only by pushing these limits the architects can further their autonomy. Only by collective action of the architects, an emancipatory sustainable future is possible. For an emancipatory sustainable praxis, the architects themselves must be emancipated. At this point, what must be discussed is the architects' position in the society. Is the architect an individual creator, or a labourer? Is the architect an authority figure, or a mediator? Architects who are steered clear from their delusions would position themselves as labourers. But still we might find ourselves in a position of authority, directing and leading those below us. However, the architect is an instrument of capitalism as much as architecture is a part and parcel of capitalism. By associating with the working class and by denouncing the delusional authority, one can be mentally emancipated as an architect. Then what we have would be the architecture for the working class, by the working class, transcending the limited autonomy of architecture, resilient to commodification. An architecture of the oppressed, the sustainable emancipatory architectural praxis.

5.1.1. Emancipation and Praxis

Praxis is one of the concepts that is the key to overcome the dualist dichotomy of theory versus practice, since praxis is neither, and both. Having found wide application in philosophy, praxis has been used to describe the sort of conscious action that stems from theory. For instance, Aristotle's understanding of praxis focuses on the political activity of the free men of *polis.* Margolis states the following on Marx's theory of praxis:

> The essential contribution of Marx's theory of praxis rests with the fact that it is preminently a theory of thinking, of how man thinks. It is the praxical nature of thought that ultimately casts man's world and man's place in his world in the usual way.[68]

Thus, Marx's understanding of praxis involves a dialectical line of thought, capable of conscious change. "According to Marx, praxis contains a creative mechanism and process, and calls for both the rational agents and their social interaction".[69] The agent capable of forming and acting on a praxis, acts also as an agent of change in conscious design. When applied to architecture, praxis forms a unification of theory and practice, with the help of knowledge and skill via the rational agent. "[T]he emerging architectural praxis has to be emancipatory and should depend on the very potentials of newly driven utopias as well as the "will" of the freed social agents attached".[70] The said social agent is none other than the architects themselves. Of course, in order to be able to be a part of any change, architects themselves must acknowledge their status as the agents. As discussed in *5.1. Architect as Worker*, a whole new mindset

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[68] Margolis, Joseph. "The Novelty of Marxs Theory of Praxis." *Journal for the Theory of Social Behaviour* 19, no. 4 (1989): 367–88. https://doi.org/10.1111/j.1468-5914.1989.tb00156.x.

[69] Sargın, Güven Arif. "Toplumbilim Açısından Mimari Praxis: Mimarlığın Öteki Ayraçları Üzerine Düşünceler." *Bülten*, no. 33 (July 2005): 24–26. p.25

[70] ibid., p. 26.

should be established to form an emancipatory praxis in architecture. Architect, by redefining themselves as intellectual labourers, are able to create a different form of architectural practice, pushing the limits of what is presented to them. By pushing the boundaries set by the system itself, architects may practice a form of autonomy in the system. Hence, architecture gains a new meaning in the form of a spatial praxis.

5.1.2. Architecture as a Spatial Praxis

The fact that social structure is built on consumerism results in physical environment and spatial framework to be shaped by the social organisation in order to facilitate this sort of relations. Parallel to the factory being a tool for organizing and monitoring production, spaces of consumption, such as contemporary shopping malls and hyper-markets, are tools organizing and monitoring consumption. Spaces of consumption does what factories do in the area of production. Factories are tools for re-organizing production in space-time basis. The need for production to be constantly stimulated by consumption requires the spaces of consumption to organize and optimize space and time for consumption.[71] Therefore, the production and consumption of the space takes place within a political and economic framework.

The root of the word politics is semantically analysed by Pier Vittorio Aureli. In *The Possibility of an Absolute Architecture*'s first chapter, "Toward the Archipelago; Defining the Political and the Formal in Architecture", Aureli discusses the fundamental differences of *Polis*, *Civitas* and *Urb*. He begins his discussion by Aristotle's explanation of politics and economics. Politics is the decision-making

[71] Yırtıcı, Hakkı. "Tüketimin Mekansal Örgütlenmesinin İdeolojisi." In *Mimarlık ve Tüketim*, 9-38. Vol. 3. Çağdaş Mimarlık Sorunları Dizisi. İstanbul: Boyut Matbaacılık AŞ, 2002.

process for common good, therefore it is public. Economics is the administration of private space, based on individual interest, therefore economics is private. *Polis*, as a result, "[…] is the space of the many, the space that exists in between individuals or groups of individuals when they coexist."[72]

In contrast to the word of Greek origin, *polis*, Latin words *civitas* and *urb* is in constant struggle with each other. *Urb* was a mere sum of houses in an enclosed area, without further political meaning. Roads play an important part in the strictly material *urb*, encouraging further expansion and connection. *Civitas* on the other hand is concerned with the political status of the citizens. However, unlike the *polis*, *civitas* includes people from various origins. These two terms can somewhat be paralleled with *polis* and *oikos*, politics and economics, public and private. The separation of these two realms came to an end as economy took over as the propeller for the Western city. Aureli states the following about the rise of bourgeoisie: "[W]ith the rebirth of the Western city after the dissolution of Roman civilization, the distinction between *urbs* and *civitas* was not simply dissolved; rather, the economic impetus of *urbs* gradually took over the political idea of *civitas.*"[73] Therefore, we end up with a public realm defined by private interest, a paradoxical private/public space.

The characteristics of this paradoxical space is that it is totalizing and is ever-expanding. As the word *urb* signifies, there is a constant flow, constant expansion in urbanisation. Expansion to the point of every space virtually becoming the urban,

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[72] Aureli, P. V. (2011). *Toward the Archipelago; Defining the Political and the Formal* in "Architecture, The Possibility of an Absolute Architecture" 1-46. The MIT Press, Cambridge and Massachusetts. p. 3.

[73] ibid., p. 7.

complete urbanisation of the society.[74] Therefore, we find ourselves in the search of another form of urbanisation. At this point, Aureli's definition of *formal* presents itself as a tool to conceptualise urbanisation. By definition, form has a defined shape, an area it encloses and another area it excludes, there is a boundary between the two areas. In Aureli's own words: "The formal can be defined as the experience of limit, as the relationship between the "inside" and the "outside"",[75]. The conception of formal can directly influence urbanisation itself. "[T]he concept of the formal and the concept of the political coincide and can be posited against notions such as urban space, urban landscape, and network, which are facts but also the very ideological manifestation of the idea of urbanization"[76].

5.1.3. Sustainable Architectural Praxis

The apolitical stance of the architect is in fact ideological, therefore political. In *The Project of Autonomy: Politics and Architecture*, Aureli summarizes the ideas of Castoriadis as following:

> [Castoriadis] accordingly defined three historical moments within the project of autonomy, which he identified as beginning at the end of the 'true' Middle Ages: first, the reconstruction of Western thinking; second, the critical period, that is, the modern; and third, the retreat into 'conformism'[77]

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[74] Lefebvre, H. (2011). *The Urban Revolution*. Minneapolis: University of Minnesota Press. p.1

[75] Aureli, P. V. (2011). *Toward the Archipelago; Defining the Political and the Formal* in "Architecture, The Possibility of an Absolute Architecture" 1-46. The MIT Press, Cambridge and Massachusetts. p. 30.

[76] ibid., p. 31.

[77] Aureli, P. V. (2008). *The Project of Autonomy: Politics and Architecture within and against Capitalism*. 4-39. New York: Buell Center. p. 5.

In this case, the words retreat and conformism fit each other perfectly. The retreat is from the political awareness towards a *political agnosticism*. By denouncing the *political* one's mind is not bogged down with the inner workings of the system, instead one can focus their desires, which ultimately serves the system. The apolitical stance is thus conformist by nature, refusing to question the system and dismissing any argument doing so. Or as in Aureli's words: "total disappearance of systematic criticism of capitalist rationality […] and the passive acceptance of representative democracy."[78] This phenomenon can be read as the hegemony of the pluralist paradigm, bolstering liberal identity politics. As a result, many argued that it was the end of the working class, or class politics.

Under this trend of postmodern politics, where does autonomy stand? To be able to understand and answer this question, we should acknowledge that capitalism and the working class are co-evolutionary, as stated by Mario Tronti. The improvement in the condition of the working class is resulting by the development of capitalism, while on the other hand, the level of this development is determined by the working class's reaction.[79] However, capitalism must act under a fine balance, keeping in mind that "the working class [is] a constant threat to it."[80] This line of thought directed Tronti to

[78] ibid., p. 7.

[79] Tronti, Mario. *Workers and Capital*. Verso, 2019.

Mario Tronti is an Italian philosopher, who is one of the founders of the theory *Operaismo* (Workerism) in the 1960s. Operaismo is known for its focus on the worker, and emphasis on autonomy. Opposing the roles of traditional organisations such as parties, unions and syndicates, Operaismo advocates the direct engagement of workers to the struggles in the factories. In the mid 1970s, the term factory has expanded to include *social factory*, emphasizing the everyday life practices of the working class

[80] Aureli, P. V. (2008). *The Project of Autonomy: Politics and Architecture within and against Capitalism*. 4-39. New York: Buell Center. p. 32.

the concept of "against from within". Therefore, what Tronti argues is that instead of opposing capitalist development, the working class should recognize its own power to generate an autonomous capacity within capitalism. Two distinct processes are presented: process of work and process of value creation. The distinction between the two is significant in defining the workers' autonomy. By putting these processes against each other, a resistance from within can be defined.

So, how can the architect as a worker act "against from within" the system, to create an autonomous capacity? The process of work in the architects' field is the intellectual labour. In the case of manual labour, the word refusal can be used as a synonym to non-collaboration, which Tronti in fact does.[81] However, with the creativity involved in the work of an architect, refusal can stand for the complete rejection of work, while non-collaboration opens ways of creating against the capitalist reason. Thus, while "against from within" may translate as strikes and the refusal of work in manual labour, it forms the ground for the creation of emancipatory works in intellectual labour. Reinterpreting "against from within" is as a result, crucial for discussing the autonomy of architecture.

Architect as a worker has two main options to act "against from within". Sharing the same method as the manual labourers, they can refuse to work, gaining "power through refusal and autonomy rather than adaptation and reform."[82] For this to happen however, architects need to be very well organized and be able to put forward an organized refusal. Otherwise one might gladly accept what the others refused. Other option to act "against from within" is through non-collaboration. As said before, refusal is not the same as non-collaboration. By utilizing the view architect as a

[81] ibid., p. 38

[82] ibid.

creative body and instead of outright rejection of work, the architect can create spaces against the reasoning of capitalism, manufacturing autonomous spaces of emancipation. By doing this the architect uses their position as an intellectual worker to act “against from within”, not by refusal, but through non-collaboration.

Therefore, the production of sustainable architecture depends heavily on architects’ ability to influence discussions on sustainability, and the ability to declare their will to create a sustainable praxis in architecture. If architects themselves are able to question their position towards the ecological crisis and the response to it, then a consistent response would be possible. In order to do so, architects need to be stripped of their technicist perspective, and have an awareness on the political outcomes of the contemporary sustainability practices. The technical and artistic values embedded in the architecture discipline should not shadow the political framework in which architect, as a part of the system, acts within. On the contrary, artistic and technical knowledge inherent in architecture can and should enhance the theoretical background that will be indispensable in creating a praxis.

5.2. Epilogue

Architecture is a discipline that requires its practitioners to make well-informed conscious decisions on every aspect of a project, which will in turn impact the urban environment, thus the society. Architect is never a single, standalone entity, but rather a consequential part of the social structure. Hence, architects are not exempt from the ideologies and paradigms that pervade their profession. As one of the most prominent contemporary paradigms, sustainability has taken its place as the keystone in post-1973 architecture. However, neither the definition of sustainability, nor nature, nor their relationship to human beings has been questioned by architects. The main motive behind this line of questioning should be the fact that the ecological crisis is deepening, despite the best of efforts. Main reason behind this phenomenon is that, this ecologic crisis is a manifestation of the capitalist crisis. To provide a proper response to such crisis, our definition of nature and how we relate with it and our core beliefs on sustainability must be thoroughly assessed.

Nature has always played a great role in people's lives. In the pre-historic era, the instinct of survival pushed human beings towards building shelters, in order to alleviate the adversary conditions of the harsh natural environment. With the production of the first agricultural surplus, the societal structure began to evolve. Spatialized division of labour gave birth to classes and more complex economies. But still, nature was a powerful adversary, something to be feared and respected, perhaps considered as a divine entity. For example, in the ancient Mesopotamian epic poem, *The Epic of Gilgamesh,* Enkidu is sent by the gods to challenge the king of city-state Uruk, Gilgamesh. Enkidu represents the power which nature holds within, and Gilgamesh is the human ingenuity which led to the creation of civilizations, cities and social hierarchy. However, only by combining their power, they are able to overcome

the evil that threatens both nature and civilization.[83] The friendship and cooperation between Enkidu and Gilgamesh signify the balance between the two. Neither of them dominates one another.

The idea of domination of nature can be traced back to the age of enlightenment, and the philosophers who glorify technical advancements as the achievements of the rational mind of mankind, such as Immanuel Kant and Francis Bacon. Kant's dualist approach to nature poses human and nature relationship as a dichotomy, which can be overcome by using rational mind as a leverage. The pursuit of control over nature with the aid of rational mind sits at the heart of the bourgeois ideology. The self-portrayal of the bourgeoisie as the master of nature not only lead to extensive commoditization of nature, but also proves the inability of the bourgeoisie in solving the ecological crisis.

The failure of an approach to sustainability based on the said conception of nature is not a surprise, considering the fact that the relationship formed with nature itself is unsustainable. Under the title of sustainability, three main paradigms catch the eye. The first is the liberal paradigm, which emphasizes the importance of the free market in the establishment of a sustainable future. Focusing on three aspects of sustainability –environmental, economic and social– liberal paradigm intends to resolve the unsustainable nature of affairs. However, its capacity to do so is questioned by eco-socialists and Marxists, since it is apparent that in most cases, economic concerns triumph over the others, resulting in a green-washed and sugar-coated capitalism. Eco-socialists on the other hand, denounces capitalism and declares it the main cause of the ecologic crisis. Ecologic crisis is the natural limit of capitalism, and green

[83] Sandars, N. K. *The Epic of Gilgamesh*. London: Penguin, 1996.

capitalism is not a viable option against the ecologic crisis. The survival of capitalism depends on production of surplus value, hence, growth. Capitalism inherently is incapable of ecologic sustainability. The need of capitalism for rapidly consumed, non-renewable goods contradict with the essence of sustainability. Not only eco-socialists oppose reformist market economy, but also productivist socialism. Marxists ecologists disagree with the last point raised, and claim that eco-socialists misinterpret Marx's views on nature. Instead, Marxists emphasize the methodologic importance of Marx's value and commoditization theories on critical approach to ecology. Ultimately, what they claim is the necessity of a dialectic approach to human and nature relationship.

Architects cannot isolate themselves from all the discussions around the topic and focus solely on the technical aspects of the issue. Just like a worker in a production line, architects take part in the production of space. In that respect, architects as the intellectual labourers, have the capacity to take control over the production. With a clear understanding of nature and sustainability, architects may act as an emancipatory agent, ecologically and politically. The key is to break free of the technicist perspective and acknowledging architects' role as political subjects. Thus, what seems to be an age old formula for a brewing a revolution applies for architecs as well: Class consicouness and collective will. Said in the context of *creative destruction* of Diyarbakır, Suriçi, Sargın (2018) states that academia's discursive practices corresponds to an intellectual field in which it guides the struggle against power with a critical mind. The praxis to dismantle cultural and ideologic codes of power is not only a struggle of the physical, but also intellectual labour. "[R]esistance finds an ample room in streets, […] as well as amid academic landscape".[84]

[84] Sargın, Güven Arif. "As We Said: From the Masculine Regime of Capitalism to Emancipatory Machine of Revolution [or, the Notes on 'Alla Turca' Reflections of Creative Destruction]." In *Conflict Planning and Design*, 2–19. Ankara: Pelin Ofset, 2018. p. 2.

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