A POWER-CENTERED APPROACH TO THE CAPITALIZATION OF CLIMATE CHANGE IN PROPERTY SECTOR AND STRATEGIC LIMITATION

BURÇİN MIZRAK BİLEN

Bauhaus-Weimar University

Faculty of Architecture and Urbanism

Weimar, 2018

A Power-Centered Approach to the Capitalization of the Climate Change in Property Sector and Strategic Limitation

zur Erlangung des akademischen Grades

Doctor philosophiae (Dr. phil.)

an der

Bauhaus-Universität Weimar

vorgelegt von

Burçin Mızrak Bilen

geb. am *17.7.1986* in *İzmir, Turkey*

Mentor der Arbeit

Prof. Dr.-Ing. Bernd Nentwig

Weimar, 2018

ACKNOWLEDGEMENTS

Many people have witnessed and honoured my searching and researching process for this study and encouraged, mentored and strengthened me with their support, trust and presence. I would like to thank as many of them as I can.

Thank you to my supervisor, Prof. Dr.-Ing. Bernd Nentwig. His deep knowledge, broadminded attitude and honest criticism were so valuable and brought freedom to this research journey. Those helped me not only to make a better doctoral research but also to be a better researcher.

Although I stayed for a short time in Weimar, I had the good fortune of having wholehearted friends there. A big thank you to Carolina Lima, Alexandra Camara and Theresia Akcivan for their rapport and solidarity.

I would like to thank my professors, colleagues and friends at Yildiz Technical University, where I've worked as a research and teaching assistant for all those years that I've continued to my doctorate study, namely; Bülent Tarım, Deniz Erinsel Önder, Tülin Görgülü, Ayşen Ciravoğlu, Selim Ökem, Kunter Manisa, Funda Kerestecioğlu, Jose Manuel Garcia Torres, Senem Kaymaz Koca, Öze Uluengin, Semin Erkenez, Özde Özdal, Neslinur Hızlı, Berrak Kırbaş, Hasan Taştan, Serhat Ulubay, Deniz Tuzcuoğlu, Nazlı Arslan and Ömür Kararmaz and last but not least Asuman Türkün, one of the final evaluators of this dissertation.

I would like to also thank the people, who light up my path with their friendship, joy, wisdom and love, namely; Selda, Sinem, Şeyma, Can and Bülent.

I would like to thank my mother, to whom this dissertation is dedicated, and my father, my brother and my grandparents. Without all your compassion, trust and support, I could not have gotten this far.

And to my husband Murat: your patience, humour and intelligence encourage me to keep going. Thank you.

To my lovely mother - *Dr. Müge Akçay*

In vitium ducit culpae fuga

Fleeing from error leads into fault

Horatius

DECLARATION OF HONOUR

I hereby declare that I have independently completed the thesis and used no additional sources or aids other than those specified as such.

Burçin Mızrak Bilen

TABLE OF CONTENTS

ABSTRACT

The capitalization of 'certified' sustainable building sector will be investigated over the power theory of value approach of Jonathan Nitzan and Shimshon Bichler. The study will be initiated by questioning why the environment problems are one of the first items on the agenda and by sharing the ideas of scholars who approaches the subject skeptically, because the predominant literature underlying the necessity and prominence of the topic is already well-known and adapted by the majority. Over the theory developed by Nitzan and Bichler, the concepts of capitalization, strategic sabotage, power, legitimacy, and obedience will be discussed. The hypothesis of "the absentee owners of the construction sector, holding the whip hand and capitalizing the ecology, control the growth and the creativity of green building production and make it carbon-dependent, in order to increase their profit margin" will be questioned. To strengthen the arguments in the hypothesis, the factors, the institutional arrangements, value measurement methods, which affect directly the net present value, will be investigated both in corporation and in building scale in detail, because net present value/ capitalization is asserted as the most important criteria by Nitzan and Bichler to make the investment decisions in the capitalist economic system. To trace the implications of power and the strategic sabotage that power caused, as the empirical dimension of this dissertation, an interface exploring the correlational ties between the climate responsive architecture and the ever changing political, economical, and social contexts and building economics praxis by decades will be developed and the expert interviews will be conducted with the design teams and the appraisers.

UMFASSENDE ZUSAMMENFASSUNG DER ABSCHLUSSARBEIT

Die Kapitalisierung des "zertifizierten" nachhaltigen Gebäudesektors wird im Rahmen des Ansatzes der Machttheorie des Wertes von Jonathan Nitzan und Shimshon Bichler untersucht. Die Studie wird mit der Frage beginnen, warum die Umweltprobleme zu den ersten Punkten auf der Tagesordnung gehören und mit der Teilung von Ideen von Gelehrten, die sich dem Thema skeptisch nähern. Denn die vorherrschende Literatur, die der Notwendigkeit und Bedeutung des Themas zugrunde liegt, ist bereits von der Mehrheit bekannt und angewandt. Über die von Nitzan und Bichler entwickelte Theorie werden die Begriffe Kapitalisierung, strategische Sabotage, Macht, Legitimität und Gehorsam diskutiert. Die Hypothese "Die abwesenden Eigentümer des Bausektors, die die Peitsche halten und die Ökologie kapitalisieren, kontrollieren das Wachstum und die Kreativität der grünen Gebäudeproduktion und machen sie CO2-abhängig, um ihre Gewinnspanne zu erhöhen" wird in Frage gestellt. Um die Argumente in der Hypothese zu stärken, werden die Faktoren, institutionellen Arrangements und Wertmessmethoden, die sich direkt auf den Kapitalwert auswirken, sowohl im Unternehmens- als auch im Gebäudebereich detailliert untersucht. Denn der Barwert/die Kapitalisierung wird von Nitzan und Bichler als wichtigstes Kriterium für die Investitionsentscheidungen im kapitalistischen Wirtschaftssystem herangezogen. Nach der Vorbereitung einer Schnittstelle, die die historische Entwicklung der nachhaltigen Architektur in Verbindung mit dem sich ständig verändernden politisch-ökonomischen System und mit den sich ständig ändernden Prioritäten der Bauökonomie, Architektur-, Umwelt- und Sozialwissenschaften darstellt, wurden die halbstrukturierten Tiefeninterviews mit Experten - Architekten, Immobiliengutachtern, einem Mitarbeiter einer Investmentbank und einem CEO, aus aller Welt, durchgeführt um die wahrscheinlichen restriktiven und begrenzenden Auswirkungen der institutionellen Macht, ihres Netzes von Machtverhältnissen, ihrer Kontrollmechanismen, die im Streben nach unterschiedlichem Gewinnwachstum eingesetzt werden, und ihrer

Gründe hinter dieser institutionellen Kontrolle auf dem zertifizierten Markt für umweltfreundliches Bauen und den damit verbundenen Materialien und Energiemärkte zu erforschen. Die Interviews sind in vier Titel unterteilt: die Vorteile (warum), die Kontrollmechanismen (wie), die Machtverhältnisse (wer) und die strategische Sabotage (was). Dies dient dazu, um einen Beitrag zur Lesbarkeit von Macht im zertifizierten für umweltfreundliches Bauen zu leisten.

GLOSSARY

Absentee owner	Modern capitalists, who are absent from production, only control and "sabotage" industry for profitable ends
Capitalization	Any income generating entity's expected future profit and interest payments, adjusted for risk and discounted to present value
Cost method	A real estate valuation method, determining the price for constructing the same structure and envelope as new and then adjusting it to its used and depreciated current stage in its lifecycle and the land cost
Differential accumulation	The differential pace of capitalization growth of income generating entities based on the ability of absentee owners' control on industry
Discount rate	The rate used to discount future earnings to their present value, hardly criticized because of its unclear and uncertain establishing process
Discounted cash flow analysis	A valuation method, discounting the future cash flows into their present values by taking into account the time value of money – investment method
Exchange value	The value or the most likely sale price of a good in highest and best use in the open market – market value
Financial capitalism	A form of capitalism in which economic and political domain is designated by financial concerns rather than industrial's
Future income	The expectation of the income for a specific time period in the future based on the past and present income, used in the net present value calculation
Grand narrative	A term defined by great postmodern thinker Lyotard signifying a big story told in order to legitimize various interventions
Green building	A term used to define the climate responsive designed buildings, which becomes famous again after 70's with the foundation of green building councils
Hype	The ratio of expected future earnings to actual future earnings. The hype coefficient measures the degree of optimism or pessimism capitalists have about future earnings.
Institutional control	Modern institutions - private or public – outline a capitalist mode of power and this power establishes the 'state' of society
Intangibles	The 'technology', 'human capital' or any kind of immaterial benefits that assets or entities have

	determining most effectively their capitalization
Net present value	The discounted present value of any income generating entity, which has the widest use in the capitalist economic system while making investment decisions
Particles of capitalization	The unknowns used in the calculation of capitalization of any income generating entity, which are future income, discount rate, risk and hype
Power theory of value	A theory developed by politicalal economists Jonathan Nitzan and Shimshon Bichler to integrate power into the calculation of value
Risk	The degree of confidence about the earnings that capitalists expect to receive from the ownership of an asset
Risk society	A term voiced by German sociologist Ulrich Beck, defining a society dealing systematically with hazards and insecurities presented by modernization itself
Sales comparison method	A valuation method, that works with benefit capturing principle focusing on the building and land characteristics of comparable properties sold in a recent time
Social mega machine	Political economists see capital as a 'modern mega-machine', which is not material but social focused not on the production but on the control of people
Strategic sabotage	The act of modern capitalists - business to strategically restrain and subjugate industry to increase their share in total
Third-party governance	The presence of third parties other than governmental bodies and for-profit organizations in decision-making and inspection process. The dominance of third parties especially in the environmental governance is attention grabbing.
Use value	The value of a property for a particular investor with specific priorities and objectives - worth

1 INTRODUCTION

1.1 Research Design

As an architecture student, I've learned to deal with and concern about the design problems of buildings and their surroundings. Architecture was an arrangement and aesthetic problem for me for six years, which has the power to make great contributions to the quality of life of people. Thankfully, later on, I've also started to realize that, as a profession, architecture has many things to say about the politics, the environment, and even the economics. It was the works of architecture, which express ideologies and construct and re-construct memories and thoughts. It was the works of architecture, which can solve the majority of the environmental problems on earth with proper designs integrated with 'appropriate technologies'. And last but not least, it was also the works of architecture, which celebrate the current economic system of our time by treating itself as a luxury consumer good. At least for me and for my generation, who took their architecture education at the beginning of the 21st century in an era of dot.com boom, neoliberalism, and globalization; architecture has become also an important tool for celebrating capitalism. Despite these concepts and trends of the time, which liberate all the professions and also architecture from the socially and environmentally conscious obligations of the past, and after six years, it was the thoughtful literature constituted by great scholars like Kevin Lynch and Jane Jacobs, which inspired me for my master's thesis to come up with the research question "What can architecture do for the underprivileged members of the society? ". I'm not going to summarize my master's thesis, but there is an important reason why I raised the subject of it here. My master's research experience showed me that everything is in the end a matter of perception. The issues should be investigated from the very general to the very specific. Before focusing on an architectural discourse or design, it should be started even with the reasons why that discourse or design is perceived worthy to be discussed and studied. So, I led off by carrying out a small research on how the

occasions and the issues occupying the agenda are defined, before they come in possession of architecture. This signifies for my thesis to research into the reasons why the environment problems are one of the first items on the agenda. To bring into question this topic from a skeptical perspective, I handled the subject over a few terms propounded by Ulrich Beck and Jean-François Lyotard. I had to approach the subject skeptically, because there is the predominance of studies in the current literature underlying the necessity and prominence of ecological or environment friendly approaches and practices. And also, the global market system failed to take into account the cost and consequences of the 90 million tons of global warming pollution spewed every twenty-four hours into the atmosphere (Gore, 2014). With these concerns in mind, I then continued with the 'improved' design and sustainability, which are entitled later on in 1990's as 'green' because of the label that they got from Green Building Councils (GBC's). And, my first intention was to study their proper design strategies and their 'appropriate technologies'. Because the GBC's are non-profit organizations and they bring a standard to the sustainable building practices, the certified projects were a narrowed down and a good topic to study. As an optimist, the word 'green' or 'sustainable' was still the cleanest thing for me in this dirty planet and I had faith in non-profit organizations because they didn't seek profit. Also, smart design solutions and latest technology implications of sustainable buildings could give the best answers to the environmental degradation and social injustice problems caused by the construction industry. My second step was then to determine the categories, under which the better-designed and sustainable buildings were analyzed and researched. It was my thesis supervisor's area of interest and also the acceptance of profit as the main target of any business, which led me to make research on better-designed or sustainable buildings from an investment perspective. Even though the buildings are sustainable and built to save the planet and the living creatures on it, they are all investment products of the construction sector. In the end, capitalism relegates everything in nature and society to numbers in a price system. So, I've scanned very quickly the resources, which include both the keywords 'improved design', 'sustainable building' and 'investment'. Those resources, published by liberal economists, corporations, and institutions, were all serving to draw the same ideal picture of those better designed

buildings from the investment perspective. Higher sales prices, higher rents, lower operation costs, and reduced risks were their common study results. However, these were the investigation results of the banks, the real estate investment trusts (REIT's), and the construction consultancy firms, which publish hundreds of pages online as free access reports. This gave the impression that those private corporations or institutions are eager to do sustainable building business. But still, they were one-sided. With the belief that the light of truth emerges from the encounter of different standpoints, I've also decided in a broader scale to look for the researches of different actors, who may have something different to say. To enlarge the scope of my investigation to a broader scale, I needed new keywords. To do this, I've re-scanned the resources that I found and tried to come up with the common terms and concepts used in these reports or articles. Because those reports are prepared and written by economists or underwriters but not by designers or architects, the terms found were all unfamiliar to me. And this required a deep study to the roots of economics and finance. So, with the terms "net present value, discount rate, financial return, and risk", I enlarged my study in the field of finance. In the meanwhile, I always had the attempt to combine these terms with green economics, green growth, green investment, and green market. Using all these terms and concepts borne its fruit. A comprehensive and persuasive study about the capitalization of green and carbon markets, made by the academician Tim Di Muzio from University of Helsinki, was showing that the amount of investment in carbon market is much more than the amount of investment in green market. In his study, he uses the power theory of value approach of Nitzan and Bichler to offer a preliminary assessment of the transition towards a low-carbon or green energy future and concludes with the fact that investors are continuing to capitalize an unsustainable future premised upon non-renewable fossil fuels (DiMuzio, 2011). At that moment, I continued to my research with the articles and books of Nitzan and Bichler, in which they explain their theory and ideas. Their arguments and claims about power and capital totally affected the direction of my research. I met with new terms like "differential accumulation, differential power, order and cre-order, capitalization, risk, industrial sabotage, and human mega-machine". There is a chapter unit in this thesis, in which I discuss further about these terms. But here, I

want to summarize very briefly their core ideas used to develop my own standpoint. They integrate power into the definition of capital. And, they claim that capital is power and by tracing the flow and accumulation of capital, it is possible to find out the owners of power. Like Di Muzio I used Nitzan and Bichler's power theory of value approach for my further investigation. In capitalism, the capital is accumulated, so is the power. And the accumulation of power was embodied in the form of institutions, corporations, investment trusts, and so on in all sectors and also in sustainable building sector to control the current and oncoming processes and practices. But then the problem of obedience has emerged. How come do all the contractors, developers, architects, engineers obey the plans or arrangements of those institutions? It was the current literature stating that each authority needs legitimation to extract obedience. At first, I've thought that the words 'green' or 'ecologic', or 'clean' are sufficient to legitimize any intervention. A building council, which is green and non-profit, was automatically legitimized. But later on, from the investment perspective, I've noticed that the market was trying to cope with the problem of "risk" and the green building councils were offering confidence. According to Nitzan and Bichler, "risk is the degree of confidence capitalists have in their own predictions" (Nitzan & Bichler, 2009). That is to say that green building investments are secured by green building councils. Also, the governments, investment banks and funds recognize and promote green buildings certified by green building councils. They provide incentives. Therefore, for the investors, the most secure way of green building investment becomes the councils'. And that way, the council's authority is legitimized. Because of these concerns, the issues of risk and legitimation also played a key role in my research. Another issue, drawing my attention, was the extreme concentration of capital accumulation. This meant that there is also the extreme concentration of power, and this brought the monopolization. So, monopolization has become also an important issue to discuss. Especially, as an architect, who has spent six years to the problems and the parameters of building design, the monopolization in green building design was frightening. It was also the cases suffering from the lack of creativity and quality in design, which canalize me to questioning about the green buildings.

Even though I knew that the research should be from the general and to the specific, I've started to do my research from the very specific. My starting point was the terms 'green building' and 'investment - value'. I've spent almost six months by scanning the documents including these keywords. But then, my research made me construct my own perspective based on the power theory of value to look at the 'green building investment' and reach to the core concepts and keywords in the related fields. So, the organization of the chapters was done accordingly.

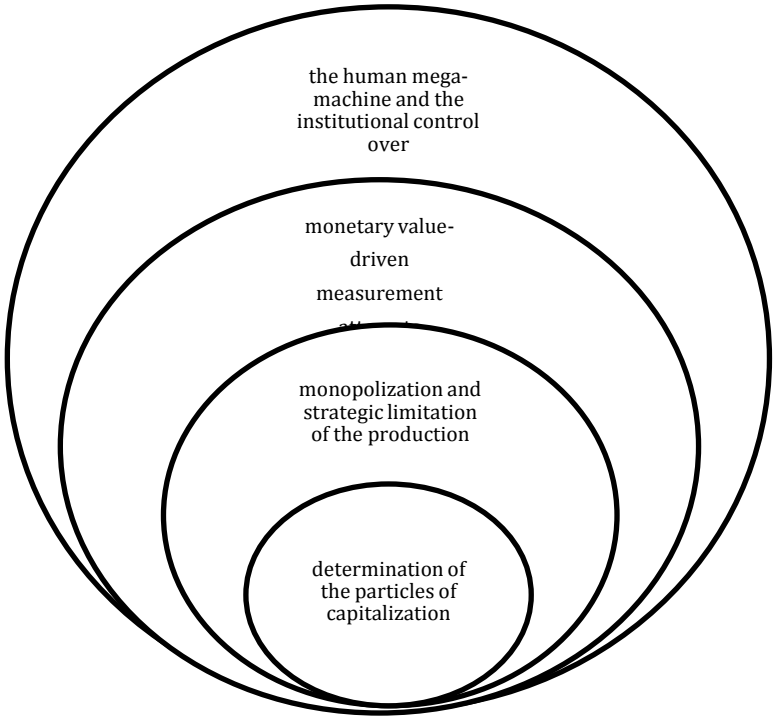


Figure 1 The Terms and Keywords constituting the Theoretical Framework of the Thesis

After I've arranged the first chapters to build and explain the theoretical framework of the thesis generated from the keywords mentioned above, I've continued with the historical survey of practices in sustainable building design depending upon the ever-changing political-economic conditions and with the in-depth interviews with architects and appraisers, who have experience on executing and appraising environmentally and socially engaged projects. I've conducted the field research to trace the monetary value-driven control and measurement attempts of the institutional power and their probable influences in the environmentally and socially engaged building profession.

1.2 Hypothesis and Research Questions

“The absentee owners” or the institutional investors or the institutional power, holding the whip hand, control and strategically limit the growth and the creativity of sustainable – environmentally and socially engaged- building production through different institutional arrangements, monetary value driven measurements and financing the knowledge production, in order to determine the particles of capitalization so to beat the average in terms of financial return and to provide confidence about investment risk. This sentence constitutes the hypothesis of this study. And in order to enlarge and explain it, the research questions below are asked and tried to be answered in this dissertation.

- Beyond buildings, why does everything receive the title ‘green’? Who does reap the benefit of it? Is greening only for the environment and for the society?
- What are the institutional arrangements, measurement attempts, factors and mechanisms; which make the institutional investors or the institutional power extract the obedience of different actors in the building industry to regulate, synchronize, routinize, and propagate the global “certified” green building movement and cause strategic limitation of building, knowledge and value production?
- How is the network of power relations in the global context strategically limiting and restricting the building, knowledge and value production in the certified green building business?
- What are the forms of strategic limitation and sabotage in the certified green building business?

1.3 Methodology

After an introductory exploration of the concepts; risk society, metanarrative and integration of energy problems and crises to the global capitalist order; the key concepts of the power theory of value approach will be discussed. And beyond buildings, the order of the consumption and production patterns will be read through these concepts. In the next step, the value-driven measurement and control of sustainability in the building sector will be investigated. Then it will be sought for the reflections of these measurement and control mechanisms in practice. The analysis of councils and corporations, which value, control and organize the green certification activities and dictate the certifications as the mainstream green building movement, will be made. There is a great impact of Green Building Councils and the research and investment institutions and companies on the global green building movement. While the institutionalization of the green building movement brings a standard around the world, it also monopolizes and homogenizes the practices. So, there is a need to question about the sustainability and the economical reasons and consequences of these mainstream green building practices. At that point, based on the theory of Nitzan and Bichler, it is claimed that the institutional order in the green building sector and the monotony of practices are maintained with the concern of confidence and green revenue from an investment perspective. And as the final part of this dissertation, which is a qualitative research, the institutional value-driven measurement and control mechanisms will be brought up for discussion through the in-depth interviews with architects and appraisers, who work either for some small occupant-investors or for the big investment and development companies. All the architecture firms, regardless of their client typology, care about the nature and society and do not overrate labeling and also the financial return, but also try to turn to account the rewarding mechanisms and escape from the chastising mechanisms of the institutional order.

2 BEYOND BUILDINGS IN THE GROWTH OF THE INSTITUTIONAL CONTROL

2.1 Handling the Risks and Crises

Ecology generates a 'grand narrative' for the risk society of 21st Century (Myerson, 2001). This is the main argument of the provocative book of George Myerson called 'Ecology and the End of Postmodernism'. He uses the terms 'grand narrative' and 'risk society' developed sequentially by Jean-François Lyotard and Ulrich Beck to explain his hypothesis. The term 'grand narrative' was first introduced by Lyotard (Lyotard, The Postmodern Condition: A Report on Knowledge, 1979). It is a term signifying a big story that is told in order to legitimize various interventions (Lyotard, G., & Massumi, The Postmodern Condition: A Report on Knowledge, 1984). However with the transition from modern to post-modern, it has lost its power to convince. At that critical point, Myerson criticizes that one-big-story of modernism has come back in the 21st Century and postmodernism was replaced by a second modernism movement. Ecology is a grand narrative used in this century to shape the society's priorities and behaviors and to legitimize the authorities' interventions. In his book, Myerson is even questioning about the existence of global warming (Myerson, 2001). But regardless of its existence, in order to make society believe the necessity to do sacrifice for a grand narrative, people are conditioned by risk. According to British sociologist Anthony Giddens, a risk society is *"a society increasingly preoccupied with the future (and also with safety), which generates the notion of risk"* (Giddens, 1999, s. 3), and the German sociologist Ulrich Beck defines it as *"a systematic way of dealing with hazards and insecurities induced and introduced by modernization itself"* (Beck, Risk Society: Towards a New Modernity, 1992, s. 260). Giddens also analyzes risks under two categories namely, external risks and manufactured risks. External risks such as bad harvest, natural disaster, epidemic, etc. are produced by non-human sources. However, manufactured risks are produced by human-beings through their knowledge. Global warming is an

example of manufactured risks. And the more modern the societies are, the more concerned with manufactured risks they are (Giddens, 1999).

The information about the risk is collected and analyzed by experts. Herewith, risk becomes computable and manageable. According to Foucault, risk is a moral technology to master the time, to discipline the future and to make it foreseeable and restrainable (Navarra, 2004). *"Modern capitalism with its forthcoming manner calculates the profit and the loss in the future"* (Çınarlı, 2009, s. 6). *"To master the risk is to master the time and to discipline the future* (Lupton, 1999, s. 87). *"With globalization, risks are not anymore belong to their point of origin, especially it is difficult to show primary responsibility in the agenda setting transnational problems as terrorism, global warming and financial crisis"* (Beck, 2000, s. 41). The production of new risks is substantiated in a systematic and combined way intended to protect the corporations' benefits, to strengthen their passiveness and to gain favor in case of crisis/chaos (Klein, 2007). In this sentence, the use of 'strengthen passiveness' connotates that the victims of the risks produced by risks generators are not able to do anything. Risk generators take the responsibility of the risks by understating and apportioning their direct responsibility, and by showing it as the common global responsibility. Environmental and social responsibility or sustainability projects could be exemplified for this.

2.2 Power Theory of Value

Capital as Power is the four-hundred page long book of the political economists Jonathan Nitzan and Shimshon Bichler, in which they introduced the theory of capital as power. It is also the name of the annual forum they organized and the review, of which they are in the advisory board. According to their theory in the book "Capital as Power", *"capital is conceptualized in terms of ownership rather than production. The basic subject-matter is not economics but capital, which is understood as a question of organized and quantified power"* (Rübner Hansen, 2011, s. 144). Nitzan and Bichler try to create a power-centered new approach to political economy. Both neoclassical and Marxist approaches have a theory of capital derived

from utility and labor theory. "*However, Nitzan and Bichler claim that both theories of value fail. They do not explain capital and accumulation properly. And so, the authors propose a power theory of value*" (Brennan, 2009, s. 1057). Their aim to construct this theory was *"to integrate power into the definition of capital" and "to define the relationship between power and accumulation*" (Nitzan, 2011, s. 173). They state that there is the absentee ownership of power. "*Modern capitalists have become investors of funds, absentee owners of pecuniary wealth with no direct industrial dealings. Capitalist assets are owned indirectly through institutional investors such as pension and mutual funds, hedge and sovereign funds, insurance companies, banks and corporations*" (Nitzan & Bichler, 2009, s. 230-231).

2.2.1 Capitalization

Capitalization used by Nitzan and Bichler signifies that *"the corporation's expected future profit and interest payments, adjusted for risk and discounted to their present value"* (Nitzan & Bichler, 2009, s. 8). Capitalization is now the focus and the center of contemporary financial capitalism. The discounting to present value of expected future earnings is now the shaping 'economic' fundamental that organizes daily life in the global context. But capitalization, as repeatedly suggested in Nitzan and Bichler's theory, is not merely an 'economic' genre, but an encompassing mode of power (Nitzan & Bichler, 2009).

In their book "Capital as Power", the authors argue that the engine of capitalism is the process of capitalization – the discounting into present value of future earnings. Capital accumulation refers to growth of capitalization. Capitalization is not about the production and consumption, but it's about the 'multifaceted restructuring of the capitalist order'. In capitalist economic system, the basic unit is the price and capitalization is the algorithm that generates and organizes the prices. A pecuniary asset is a claim on earnings. Bonds, corporate shares, preferred stocks, mortgages, bank accounts, personal loans, ownership of apartment blocks are all income-generating entities, and their price is the present value of their earnings expected to generate. So, capitalization is based on earning capacity rather than actual cost. But at this point, the authors claim that it is unclear which interest rate and hype and risk

coefficients to use in discounting. The advertisements, publications, funds, incentives, insurance coverages, tax cuts, etc. all affect the coefficients used to calculate the nominal value of discounted earnings and they are manipulated in favor of the profit growth of the richest %1 of the world's population. And this results in differential accumulation as Nitzan and Bichler explain in their theory. According to their theory, the pace of capitalization of income generating entities of everybody becomes not the same but differential for the sake of capitalists – the dominant capital owners.

Nitzan and Bichler also mention about the capitalization of every thing in their book. They claim that capitalists routinely discount human life, organized institutions from education to religion, voluntary social networks, urban violence, civil war, international conflict and even the environmental future of humanity. By borrowing money to buy a car or to take a mortgage, workers devote part of their life to banks. So, the bank capitalizes part of the worker's life as an asset.

The authors discuss about the capitalists ability to shape human hopes and fears with the promise of pleasure and with the threat of pain. Power institutions and organizations of capitalism shape the distribution of capital by commercial advertisements. According to Nitzan and Bichler, the role of discounting is most clearly seen in the recent discussion of environmental change. They bring into question the report results or expert statements either calling for immediate action or inaction by using capitalization to strengthen their argument. They raise the debate over the discount rate of the future damage of climate change. Authors give an example to explain the problem. When the discount rate is 1.4 per cent, the present value of the one-thousand-dollar environmental damage in one-hundred-year period is now -$249. But when the damage is discounted at a rate of 6 per cent, then the same amount of damage (one-thousand-dollar) in the same period of time (one-hundred-year) has a present value of only -$3. This means that the power institutions or government organs can control and decide the present value of the same damage only by changing the discount rate. Because climate change becomes an entity, which can be converted into quantitative unites – prices, it also becomes a commodity discounted and capitalized. Regardless of its existence or destructive

consequences, climate change is now the generator of tens of funds and hundreds of companies making money from fighting against it.

In their book, Nitzan and Bichler also argue that capitalization of capital goods cannot be connected with their 'physical quantity', because it is impossible to know the productivity or earning generating capacity of those capital goods and so to discount them into their present value. They underline the difference between capitalization and money price of capital goods by making the comparison of the two leading corporations of the United States namely, General Motors and Microsoft.

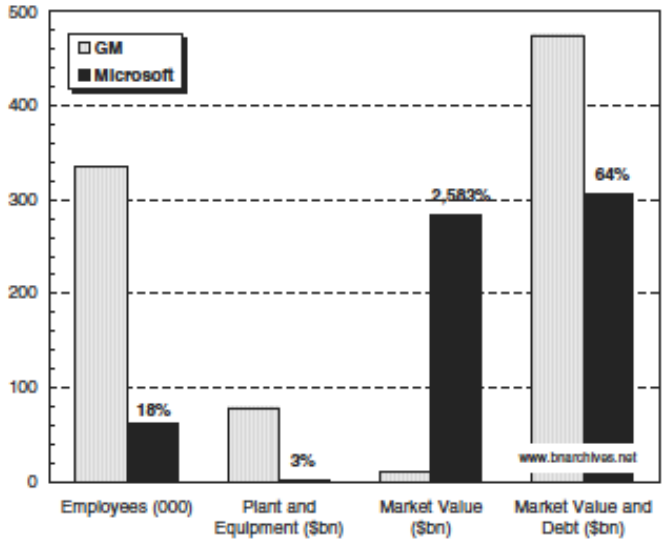


Figure 2 General Motors versus Microsoft (Nitzan & Bichler, Capital as Power: A study of order and creorder, 2009)

While the initial two sets of bars represent the employment and plant and equipment capacities of corporations, the last two sets of bars represent the net present value of the corporations in the market. As it is seen, there is a negative relationship between the capital goods and capitalization of the corporates. The current academic explanation to this contrast is done through the existence of intangibles, which are the 'technology' and 'human capital'. However, the authors claim that it is impossible to be sure on this argument, since quantifying technology or human capital is impossible. According to the authors, in addition to tangible and intangible assets, it's also 'the excessive optimism or pessimism of investors', which affects the market value of corporations. And when the market value of a corporation exceeds the cost of its assets, accumulation is observed. They give an example from real-estate sector. In the 2000s, investors forced the real-estate

capitalization. Its capitalization far exceeded its asset cost and this resulted in asset-price inflation. To sum up, there is a negative relationship between the growth of real assets and the growth of capitalization. There is a huge difference between the asset costs and asset values in real estate sector. Also, the market value of real-estate corporations is very high. Besides, the investment experts state that investing in the shares of real estate companies is more profitable than investing in the real estates themselves. In other words, there is a remarkable inflation in the share prices of real estate corporations. And this signifies the existence of growth of capitalization and in other words capital accumulation. There is an actual earning of the real estate corporations from real estates. But this does not explain their inflated share prices in the market. Of course, it's not only the tangibles of a corporation, which determine its market value but also its 'subjective' and 'incalculable' intangibles. And, this is how the dominant literature explains this difference. However, according to the theory used in this thesis, the growth of capitalization is increased through the management or manipulation of earning expectations, hype, risk, and discount rate in a way that they make the arranger of those coefficients gain the biggest amount of profit. So, it is these particles causing this inflation in share prices.

Discounting future earnings into their present value is still lacking in detail and transparency. The answers to the three main questions, – what discount rate is used – which earnings are discounted and – do they change in time, are still unclear. According to Nitzan and Bichler, it's impossible to reduce all the reactions into one equilibrium. They analyze capitalization from the organized capitalist power perspective and claim that capitalists do not only react to current conditions but also try to control and change those conditions.

Nitzan and Bichler make the equation of capitalization as follows.

$$Kt = \frac{E \times H}{r}$$

In this expression, K_t is the capitalization at any given time, E is the actual level of future earnings, H is the hype coefficient and r is the rate of return. Hype coefficient is equal to the ratio of expected future earnings to actual future earnings (H=EE/E).

They express price of a share at any given time as follows.

$$Pt = \frac{EPS \times H}{r}$$

In this equation, P_t stands for the price of a share at a given time, EPS signifies actual future earnings per share. Similarly, hype coefficient is equal to the ratio of expected to actual future earnings per share (H=EEPS/EPS).

The level and growth of earnings are the main benchmark of capitalization. Capitalists use current earnings to 'extrapolate' future earnings. The hype coefficient measures the degree of optimism or pessimism capitalists have about future earnings. Hype bears directly on power. According to the authors, a dollar spent to change earning expectations can bring far greater return than a dollar spent to increase the earnings themselves. And, the aspects of capitalization growth are all about the organized power. It's impossible to solve one equation with three unknowns. Also, the discount rate reflects the confidence capitalist have in their own forecasts.

By taking into account the risk, Nitzan and Bichler develop the equations of capitalization and price per share as follows.

$$Kt = \frac{E \times H}{r \times \delta}$$

And,

$$Pt = \frac{EPS \times H}{r \times \delta}$$

In these equations, δ refers to the risk coefficient.

To sum up, the 'capital stock' and the 'capitalization' grows in opposite directions. The former is backward looking and the latter is forward looking. And the four elementary particles of capitalization; actual future earnings, hype, rate of return and risk coefficient; are matters of power.

2.2.2 'Industrial Sabotage' and 'Human Mega-Machine'

"The views of Prof. Nitzan and Prof. Bichler come from institutional economist Thorstein Veblen's distinction between industry —the production of useful articles to meet human needs—and business —dealings in purely pecuniary values with the aim of increasing those pecuniary values" (Larudee, 2011, s. 419). Veblen states that it is

essential for business to restrict the industry. Otherwise, the profit will collapse to zero. Business operates the functioning of industry. Referring to Veblenian standpoint, Nitzan and Bichler argue that business is the essence of capital, not industry.

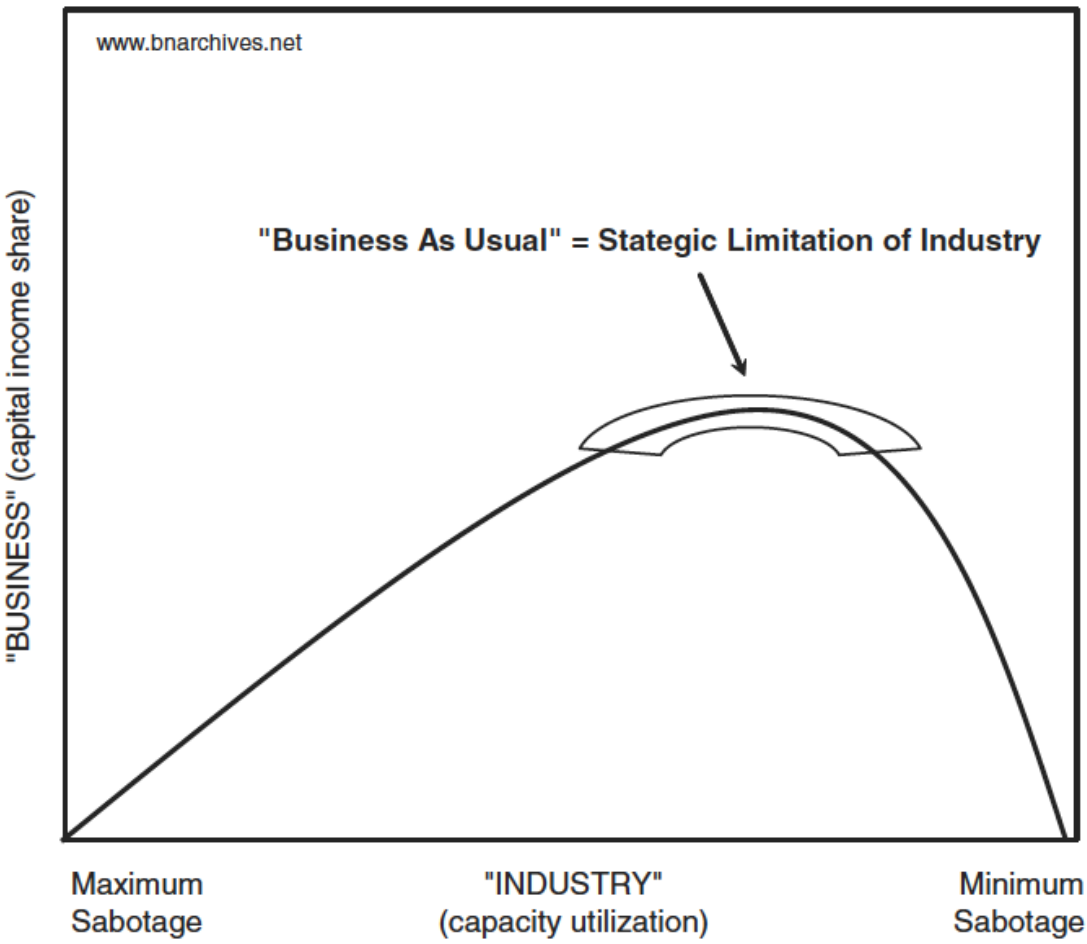


Figure 3 Business and Industry (Nitzan & Bichler, Capital as Power: A study of order and creorder, 2009)

In their book 'Capital as Power', Nitzan and Bichler hypothetically explain the relationship between the utilization of industrial capacity and the capitalist share of income in a chart presented above. They claim that until a time the relationship between the industry and business is positive, but then it turns to negative. In both extremes, where there is the minimum or maximum sabotage of industry by business, the capitalist earnings collapse to zero. And they use the concept of strategic limitation for maximum earning, which was firstly introduced by Veblen.

The authors also rely heavily on the work of Lewis Mumford, who was greatly influenced by Veblen and the author of the 'myth of the machine'. Rather than following Veblen's notion of power as a restraint on production and technology,

Mumford saw power as a form of technology. He developed the concept of “mega-machine”. According to Mumford, the first machine was social. The point of origin of mechanization was civilization itself. And the first human mega-machine was constructed by early kingships to extract obedience. Extending Mumford, Nitzan and Bichler claim that the mega-machine of today’s capitalist economic system is constructed by the capital itself or by the large-scale business organizations, which hold the majority of the capital. They treat capital as a human mega-machine and a structure of social control. “The acceptance of mechanization as a social mode of organization is now reflected in the normal rate of return (NRR)” (Nitzan, Differential Accumulation: towards a new political economy of capital, 2011). Capitalists aim at beating the average and exceeding the normal rate of return.

2.3 Power, Legitimacy, and Obedience

The neoclassical theory conceives the economic growth and the capital accumulation only as an economical problem. However, Blair Fix in his book of 'Rethinking Economic Growth Theory from a Biophysical Perspective', underlines the necessity to look at the problem of growth as a political problem (Fix, 2015). And he evaluates the validity of this hypothesis from a biophysical perspective with the study results of some scholars. So first, he shares the results of a study about the ability of species to form social groups noting that the neocortex size put a limit on the number of social relations of an individual. And this number is estimated as around 150 for the human brain size (Dunbar, 1992). Fix continues that the economic growth requires complexity in society and increase in the size of civilizations. And he underlines the necessity for hierarchy in the human society by including another study, which states that hierarchical organization allows group size to grow without a corresponding increase in the number of interpersonal relationships (Turchin & Gavrilets, 2009). So, the economic growth obliges the hierarchy to exist in growing social structures. In addition to these evidences, Nitzan and Bichler also claim that the economic growth requires the centralization of power.

> *"... from [Adam] Smith onward, it became increasingly customary to separate human actions into two distinct spheres, 'vertical' and 'horizontal'. The vertical dimension revolves around power, authority, command, manipulation and dissonance. Academically, it belongs to the realm of politics. The horizontal axis centers around well-being, free choice, exchange and equilibrium - the academic preoccupation of economists" (Nitzan, Bichler, & Shimshon, 2000, s. 67).*

The notion of power had a wide coverage in social sciences since the early 16th century. The writings of Nicollo Machiavelli, and later on, Thomas Hobbes have started the modern thinking on power. Max Weber proposed three forms of authority, namely; traditional, rational-legal, and charismatic and wrote about the

legitimation of authority through belief systems (Houghton, 2010). Robert Dahl, professor at Yale University, has constructed the pluralist theory of democracy and also the theory of community power and contributed to the discussions on power through his decentralized and pluralistic perspective (Munro, 2016). Peter Bachrach and Morton Baratz, approached skeptically to the democratic process of the exercise of power. They've added the concepts of "the two faces of power" – overt and covert, and "non-decision-making process", and made contributions to the literature with avoidance of conflict and mobilization of bias referring to institutional power capable of supporting and dictating some knowledge and information while excluding others (Gale, 2008). Then Steven Lukes enriched the thought on power with his three dimensional theory of power (Dowding, 2006). While in the overt dimension, the decision making process is open and the conflicts are traceable, in the covert dimension, the mobilization of bias affects the belief systems and values of individuals and prevent conflicts with the ability to manifest only a very small part of the problem. In addition to overt and covert dimensions, Lukes added the latent dimension to the discussions of power, in which there is the influence of decision makers on the consciousness and perception of the people who remain outside in the decision making process and cause "quiescency" and self-sabotage among them. Michel Foucault constructed the terms "disciplinary society", "disciplinary power", and "Foucauldian discourse analysis" focusing on power. Faucoult rejected to accept that he has constructed a theory of power or one mechanism about the possession of power. But rather, he prefered to talk about mechanisms and decentralized position of power changing all the time in different practices. His writings on power have outspread to the all disciplines of social sciences. He developed correlational ties between power, knowledge and finally the truth itself and stated in his book, *"truth is a production thoroughly imbued with relations of power"* (Foucault, 1978). Anthony Giddens established "the theory of structuration" or "the duality of structure". On this perspective, power is not a privilege but a social factor, and the structure or the human agency both possess and expose power at the same time (Sewell, 1992). So accordingly, there aren't priviledged members of society who control and possess power constantly. And also, there aren't disadvantaged

members who controlled and expose power constatntly. Each member of the society has the chance to possess or expose power consitionally.

The studies on the concept of power accompanied many other concepts like resistance to power, legitimation, obedience, consent, hegemony, common sense and so on. And after studying power through a selection of approaches, it is considered necessary also to elaborate these concepts, which constitute a basis for the approach to power in this thesis. According to Foucauldian viewpoint, the strongest and most efficient way for power possessors to control and determine the social order is not obtained by oppressive forces or, doctrinal or ideological values, but rather, it's obtained with the production of knowledge, truth, and common sense.

> *"… And also, power is institutionalized through cultural practices, the social planning and design of physical spaces, organizational procedures, and administrative, bureaucratic systems. These resulting systems of discourse, power, and knowledge, in turn, channel the personal outlooks, self-conceptions, and behaviors of individuals along these socio-culturally institutionalized paths"* (Thompson & Tambyah, 1999).

Extracting obedience is not anymore something gained by enforcement. Today both the governments and the corporations must win their citizens' or customers' consent. Consent is the most prominent requisite to sustain the hegemony. Therefore, the group who exercise the hegemony must do sacrifices for compromising and pay attention to the expedience and tendency of the group of people resigned to hegemony (Çınarlı, 2009). However, the hegemonic group must also protect its economic interest. In this sense, the corporate social responsibility (CSR's) projects are the operations, with which corporations both do sacrifice and targeted to gain ground upon in the long run. Another issue related with hegemony is the Gramsci's concept of 'common sense'. Gramsci considers it to be *"the embedded, incoherent and spontaneous beliefs and assumptions characterizing the conformist thinking of the mass of people in a given social order"* (Gramsci, Hoare, & Nowell-Smith, 1971). Everybody's thinking in a common way, in the desired direction is a sign of the existence of the 'common sense'. From this point of view, it

is possible to spot the environmental certificate programs or rating systems in all sectors as the sacrifices done to procure consent and common sense.

Orthodox economics is focused on “the study of relationships among things, not people” (Bowles & Gintis, 1993, s. 84). However, things are adopted or rejected by people. So, the study of the valuation of things cannot be dissociated from the study of the relationship among people. Also when it is discussed about the economics of green buildings, the relationships among the players of the sector and their role in pecuniary value determination cannot be missed out.

3 VALUE MEASUREMENT STUDIES OF 'SUSTAINABLE' DESIGN IN PROPERTY SECTOR

3.1 What is Valuation Indeed?

According to Merriam Webster's Collegiate Dictionary, value is defined as "a fair return or equivalent in goods, services, or money for something exchanged; the monetary worth of something: market price; relative worth, utility, or importance."

In most of the places in the World today, when people want to own something; which can be a company, a car or a medical examination; they have to pay the monetary equivalent of it. One, mostly, has to exchange a good or a service with money. Indeed, this doesn't sound ridiculous. Mankind is not self-sufficient and buys what it needs. But, by whom and in what way the monetary worth of things is calculated? How can we explain that a tree in urban Toronto costs 700 CAD? According to a report from TD Economics published in June 2014, the trees in the urban forest of Toronto are worth 7 billion CAD or 700 CAD per tree. In the news, it says the value of each tree is calculated through its procurement of saving energy, keeping rain and snow off the streets and absorbing pollution (Brownell, 2014). So these benefits of a tree have a calculable value. Then the question arises: how do we correlate the benefits of a thing with its economic value. The literature tells us that there are different methods for value calculation and according to the sector the things you value alter. But almost in all the sectors, the experts try to specify the value of intangible benefits. In the business accounting, the value of companies' intangibles; in the environment, the value of greenfield sites; in the art, the value of culture; and in the public sector, the value of public services are tried to be calculated (Macmillian, 2006). And in the property sector, experts try to calculate the value of properties. The issue of value calculation of design, 'improved' design, and further sustainability of properties, which is also the topic of this dissertation, has started to be a concern for academe and industry. The measurement attempts

have been started in the 60's. In the beginning, the academe has focused on the cost-benefit analyses of the building elements. Construction costs and the operational bills are the tools for measurement. Further on in 70's, cost-modelling and cash-flow forecasting has gone into practice. 80's experienced the life-cycle costing and value engineering. And, 90's have witnessed the added value of design studies. From 2000 on, measuring sustainability as a value adding mechanism has become the focus of the research agenda (Loe, 2000). Today, the efforts and researches still continue to determine the value of intangible benefits of sustainable – especially certified- properties. The dominant view is that the better the tangible and intangible benefits are expressed, the more the value and the implementation of better-designed or sustainable properties will be. However, in this thesis I claim that the value of things – improved designed properties - cannot be solely depending on their benefits or performances. The opinion leaders' and major firms' actions, the financial incentives, advertisements, study results – in other words the social mega-machine - are just as important as the benefits. But who are the think tank of this machine? How and with what purpose do they dominate the financial value calculation practices?

3.2 Concepts of Value

As this thesis tries to straightly understand the value calculation process from a financier's or an investor's perspective, a heavily attention is first given to the concepts of value in finance sector. But further on, the concepts of value for other stakeholders than financiers or investors; such as the developers, the designers, the occupants, and the public; are also brought up for discussion. So accordingly, at first, the market value/ or exchange value, the worth/ or use value, and the image value are investigated. The terms; 'market value', 'worth', and 'price' need to be separated from each other. In property valuation, the two main concepts of value are 'market value' and 'worth'. Market value is the exchange value or the most likely sale price of a good in highest and best use in the open market (Lorenz & Lützkendorf, 2008). There are two important points to consider in this definition. First one is the adjective 'most likely'. It describes the uncertainty and the lack of mathematical precision. And the second one is the 'highest and best use'. So, to talk

about the market value, first, you need to ensure the most competitive and profitable conditions. In other words, market value is a hypothetical, not a computational, sale price in some ideal conditions. In most of the property valuation practice today, it is the market value, which is calculated. On the other hand, worth does not deal only with market. In worth calculation, in addition to the market driven information, also the investor's intentions are taken into account. Worth is the use value. The definition of it can be done as the value of a property for a particular investor with specific priorities and objectives (Lorenz & Lützkendorf, 2008). The investor here, can be a portfolio investor or an owner-investor. For the former, the worth means the discounted value of the cash flow. But for the latter, the worth means the sum of net present value of a property and its all profit-increasing and image benefits. The image benefit, which is accounted for the image value, constitutes also another noteworthy supplementary benefit. After 1990's, the financiers started to use that concept as a value-adding driver not only in the property level but also in the corporate level.

Type of value created	Bundle of valued outcomes	Examples of indicators or metrics
Exchange value	Building as a commodity to be traded, whose commercial value is measured by the price that the market is willing to pay. For the owner this is the book value, for the developer the return on capital and profitability. Also covers issues such as ease of letting and disposability.	Book value Return on capital Rental Yield
Use value	Contribution of the building to organisational outcomes: productivity, profitability, competitiveness and repeat business, and arises from a working environment that is safe in use, that promotes staff health, well-being and job satisfaction, that encourages flexible working, teamwork and communication, and enhances recruitment and retention while reducing absenteeism. Measures will vary sector by sector but might include recovery rates, footfall, examination results, and occupant satisfaction.	Measures associated with occupancy: such as satisfaction, motivation, and teamwork. Measures of productivity and profitability.
Image value	Contribution of the building to corporate identity, prestige, vision and reputation, demonstrating commitment to design excellence or to innovation, to openness, or as part of a brand image.	Public relations opportunities Brand awareness and prestige
Social value	Buildings that make connections between people, creating or enhancing opportunities for positive social interaction, reinforcing social identity and civic pride, encouraging social inclusion and contributing towards improved social health, prosperity, morale, goodwill, neighbourly behaviour, safety and security, while reducing vandalism and crime.	Sense of community and neighbourly behaviour Reduced crime and vandalism
Environmental value	The added value arising from a concern for intergenerational equity, the protection of biodiversity and the precautionary principle in relation to consumption of finite resources. The principles include adaptability and/or flexibility, robustness and low maintenance, and the application of a whole life cost approach, and the immediate benefits are to local health and pollution.	Environmental impact Whole life value
Cultural value	Culture makes us what we are. This is a measure of a building's contribution to the rich tapestry of a town or city, how it relates to its location and context, and also to broader patterns of historical development. Cultural value may include consideration of highly intangible issues like symbolism, inspiration and aesthetics. Indicators of cultural value may include critical press opinion and, perhaps, the 'wow' factor.	Press coverage Critical reviews

Figure 4 Six different bundles of value to capture intangibles of 'better designed buildings' (Eclipse Research Consultants, 2005)

The table above is the summary of a group of studies' results. The project was directed by Eclipse Research Consultants, and with its partners namely CIC, CABE, RIBA, RICS, BIFM, and the Office Productivity Network. The main aim of these studies was to capture the intangibles of 'better designed buildings'. The concepts as

exchange value, use value and image value are already explained. These are the values, which have a more direct link with the financial value. However; the social, environmental and cultural values do not. At this point, I would like to ask why the direct link with these social, environmental and cultural values has not been established yet. In fact, it's very skeptical that, since the beginning of 2000's, despite the academia made research on how all these intangibles affect the financial values of the buildings, they didn't come yet to a convincing conclusion. In order to verify my doubts I'd like to mention about some terms and concepts. Improving social interaction and social identity, reducing social segregation, increasing safety and security, protecting biodiversity and interspecies and intergenerational equity, reducing pollution, protecting finite sources, improving aesthetics, generating a positive media opinion and so on are all the social, environmental and cultural benefits of improved design. But besides their valuation, these concepts still couldn't been entirely achieved in our cities. In other words, these concepts are not able to seen physically in the built environment, because the financial benefits and the social and ecological benefits mentioned above are compatible with each other up to a certain point and after that point the win-win relation is lost. Here, Prof. Veblen's theory of "limiting the production strategically to maximize the profit margins of absentee owners" materializes. Anecdotally, a study made in the London neighborhood between the years 2000-2009, examining the value of 'certified' sustainability in the commercial built environment because of the zeitgeist, finds that the augmentation in the number of 'certified' sustainable building supply in a neighborhood increases the average of rents and sales prices in that neighborhood. So, the study results claim that the 'certified' buildings have a gentrification effect in their neighborhood. But surprisingly, after a certain point, each new certification for a new building decreases the percentage of financial premium of that certification by 2 per cent for the rental market and by 5 per cent for the transaction market, because the certified buildings become a standard rather than an exception (Chegut, Eichholtz, & Kok, 2013). So, it has never been just the better designed buildings which are exposed to the direct attention of financiers but also the whole neighborhood and the whole financial gain from that neighborhood. So, a cluster of certified and non-certified properties together become the concern of financiers.

And, it is never the environmental, social and cultural benefits of ‘improved’ design or certification, but the financial gains, longer rent contracts, gentrification effects and so on which have the primary impact on the production.

Stakeholders	Short-term value (social, economic and environmental)	Long-term value (social, economic and environmental)
Investors	Potential for greater security of investment depending on market Higher rental returns Increases assets value (on which to borrow) Reduced running costs Competitive investment edge	Easy maintenance if high-quality materials Maintenance of value/income Reduced maintenance costs (over life) Better re-sale values Higher-quality longer-term tenants
Developers	Quicker permissions (reduced cost, less uncertainty) Increased public support (less opposition) Higher sales values (profitability) Distinctiveness (greater product differentiation) Increased funding potential (public/private) Allows different sites to be tacked and higher densities achieved	Better reputation (increased confidence/'trademark' value) Future collaborations more likely with other developers/investors
Designers	Increased workload and repeat commissions from high-quality, stable clients	Enhanced professional reputation
Occupiers		Happier workforce (better recruiting and retention) Better productivity Increased business (client) confidence Fewer disruptive moves Greater accessibility to other uses/facilities Reduced security expenditure Increased occupier prestige Reduced running cost (energy usage)
Local authority	Regenerative potential (encouraging other development) Reducing public/private discord and time spent on reactive planning	Reduced public expenditure (on crime prevention/urban management/urban maintenance/health problems) More time for pro-active planning Increased economic viability for neighbouring uses/development opportunities Increased local tax revenue More sustainable environment
Community interests		Better security and less crime Increased cultural vitality Less pollution (better health) Less stress (better health) Better quality of life More inclusive public space A more equitable/accessible environment Greater civic pride (sense of community) Reinforced sense of place Higher property prices

Figure 5 The short- and long-term beneficiaries of value of good design in the built environment (Carmona, 2002)

This is a study from 2002. It summarizes the values of good design in the built environment both for short- and long- term for different stakeholders. As mentioned earlier, although the design of the built environment is primarily evaluated financially in this thesis, it is considered necessary to state and discuss in what ways the other stakeholders can get benefit from good design in order to approach the topic holistically. For sure, the data illustrated in the table expresses the opinions of those who conducted the study and it has been shared in this thesis because it represents the diversity in the current literature very comprehensively. However, there is a question mark here in my mind, which I'd like to specifically underline. If good design of the built environment really creates high values and benefits for all of the stakeholders equally, then, why do the vast majority of our cities still suffer from the lack of socially and environmentally engaged good designs? There is a truth known by everyone that the expectations and benefits of the financing stakeholders have the priority. In this chart, stakeholders, providing financing for the design of the built environment, are the investors or investor-developers. And, their common benefits can be summarized as increased asset value, higher rental return, better reputation and increased confidence. According to the "power theory of value", I have already explained in detail in the second chapter that the finance sector tries to control these above mentioned terms in value calculation. And there isn't anything wrong with this at first glance. However, if we return to the question preoccupying my mind, the fact that the built environment is not designed and shaped in the desired way and pace for all the stakeholders except for the investors and developers makes me think that good design embodying all these values might have different meanings for investors and developers and for all the other stakeholders. So, the design, which is good for the investor and developer, might not be good for the designer, occupant and community. The finance sector, which puts constantly the use value on the back burner and is obsessed with the market value, might disregard also the benefits of good design for the real users of the built environment. And this leads us to the idea that the production and design of the physical environment is sabotaged strategically as a result of the future income and risk oriented measurement and valuation mechanisms of investors.

Are we sincere about measuring?

For what other purpose do all these formulas serve except for making different stakeholders with different priorities seem like they look for the same thing!

What kind of a relationship is there between being intent on controlling risk and future income and measuring the quality of the production and also making the whole production and science be performance-oriented and numerical data-oriented? In fact, there is a very important connection! The financing institutions or investors, who are looking for security confidence and continuous cash flow, are not ready to the novelty, alternatives and good quality products exceeding a specific amount. The usual business chart, showing the relationship between the strategic limitation of the industry and the capital income share, held responsible for this. It's because in this case, the profit is getting reduced and risk is getting increased. However, to become better on one specific thing is not something that you can achieve by licking that thing into shape but it's something that you can get by giving it an unprejudiced try.

Measurability obsession cannot be something different than the imposition of the power holders, who are afraid of confusion and disorder.

3.3 Traditional Valuation Methodologies

The tool of the academe and industry to authenticate the benefits of sustainability in monetary terms is the valuation process itself. As Lützkendorf and Lorenz collected in their paper called "Sustainability in property valuation: theory and practice", the most commonly used traditional valuation methods in the industry are sales comparison method, investment method/ discounted cash flow analysis, cost method, profits method and residual method (Lorenz & Lützkendorf, 2008). And among them, the ones that are used the most are the first three. The first method, which is sales comparison method (international) or comparative method (German) – Vergleichswertverfahren, is based on a benefit capturing principle. It's because the building and the land characteristics play the most important role in value calculation process and not the risk and cash flow. Usually it is used for the valuation of single-family homes. The appraiser compares the property that s/he values with the comparable properties sold in a recent time. To be comparable, there are some

criterion like; location, size, age, structure, construction quality, materials, room numbers, physical features, etc., which should be equal. The German comparative method is used both for the land and for the building separately. In order to collect adequate data, the board of expert valuers collects data and annual real estate market reports are published (The European Group of Valuers' Association, 2010). The obstacle for this method could be not the main logic behind its application but the lack of equal property to compare. In the end, it's quite difficult to find similar properties in similar characteristics and conditions. Especially, if a sustainable design productis concerned, the complexity and uniqueness of its features can be failed to notice. The second method, which is investment method/ discounted cash flow analysis (international) or income method (German) – Ertragswertverfahren, is much more risk and cash flow oriented with respect to first valuation method, unless it is used for worth calculation. Here, the income generated from a building for a specific amount of time is discounted into its present value. As it is deeply criticized in the second chapter under the title of capitalization, this method is quite ambiguous and subjective. But still, it is the most commonly used method in industry. The only difference for the German method is the separation of land and building for the income calculation. So while in international methods, the vacancy rate, the rent losses and the operating expenses are subtracted from the income; in German method, also the costs of demolition and site clearance are taken into account and subtracted from the income. Because in sustainable building design, a specific attention is given to the site characteristics of a building, the attention given to the land in German valuation approach may orient the investor to see the advantages of sustainable construction. If one calculates the market value by using the investment method, s/he becomes too much market oriented. However, if one uses this method for worth calculation, then the sustainability performance of a building are added to the valuation process and this method works as a tool for investors this time to force them for sustainable investments. The last method, which is cost method (international), and depreciated replacement cost method (German) – Sachwertverfahren, also works as a benefit-capturing tool in sustainable property investment. This method is calculated by determining the price for constructing the same structure and envelope as new and then adjusting it to its used and

depreciated current stage in its lifecycle and adding the market value of the land on which it is built. Because of the longer lifespans of sustainable buildings, they value more with this method. And this result serves for the promotion of sustainable buildings.

The advanced valuation methods; which are hedonic pricing methods, artificial neural networks, spatial analysis methods, fuzzy logic, autoregressive integrated moving average, real options method, and rough set method; have no use in industry. The lack of embracement of different methods in valuation practice, leads the deficiency in capturing the benefits and the intangibles of properties. There are the image value, social value, environmental value, and cultural value of a building created in the built environment (Macmillian, 2006). The professionals and the academicians in architecture profession still preserve their belief that the above-mentioned values of a building – as their design product – have a meaning and they should be added to the use value. But in the accounting profession, where everything has been rendered down into numbers, buildings don't get a specific attention or favor and are counted as an ordinary product. Macmillan claims that if it is achieved to place a value on intangible benefits of works of architecture, then the corporations make more investment in them (Macmillan, The Valuation of Intangibles, 2005). The dominant view in general is that the non-monetary values, of which impacts are intangible, have to be added to the valuation process. The valuation professionals can persuade investors or developers to invest in 'good design', if they really understand and express the potential and value added characteristics of them.

3.4 Complexity, Uncertainty and Challenges of Value Creation in Sustainable Property Sector

Real estate is taken into account as a distinguished or composite good in economic theory. Buildings are composed of an extensive variety of features, which makes each property unique. In addition to that, the green characteristics of each building are unique as well. A LEED green associate and a property appraiser and consultant

Adomatis from the United States expresses in her article that even in the United states there are more than 100 rating organizations using different rating methods. So there is a need for the standardization of the green rating systems. She complains about the inaccuracy of the information about the greenness of buildings in some of the databases and also unavailability of some others for access such as LEED's, Energy Star's, and also Department of Energy's. She also mentions about the dependence of appraisers to the market for property valuation and declares that the market determines the prices and appraisers rely on those prices published in market reports (Adomatis, 2015). The last issue expressed by Adomatis is enlarged by Nitzan and Bichler in their book 'Capital as Power'. According to the authors, it is the received liberal dogma, which perceives firms as 'price takers'. So, the firms accept whatever price mother market gives them. However, the reality looks like the opposite. The standard practice, documented since the 1930s, demonstrates that most modern firms are 'price makers'. They set their own price (Nitzan & Bichler, Capital as Power: A study of order and creorder, 2009). So, the prices are determined by either the mother market or the most modern firms. But in any case, it is not the real estate appraiser setting the price as it is supposed to be. So, in practice, the hedonistic characteristics of the real estate product don't seem like playing much role in price making. Another study conducted by Qian and his colleagues explains the real estate developers' concerns of uncertainty in energy efficient building investment in three different aspects such as; economic uncertainty, market uncertainty and policy uncertainty. Interviews are conducted with 15 top managers, directors and their representatives working in the major real estate development firms in Hong Kong about the effects of uncertainty on their decision-making process. In the study, the economic uncertainty refers to the changeability of the economic upturn or downturn periods, the market uncertainty implies the end-users unpredictable and variable expectations, and the policy uncertainty means the changes in the incentives and policy implementations. For the economic uncertainty, the findings show that in economic downturn periods, both the developers and the buyers are unwilling to develop or buy energy efficient buildings. So, the government incentives become more important. On the other hand, in economic upturn periods, government incentives or promotions are less effective, since buyers are less

concerned about green characteristics and the buildings are sold well. For the market uncertainty, the findings indicate that the people motivated to buy energy efficient buildings are “richer” and “better educated”. And lack of standardization about the performance of green buildings in different greenness levels confuses consumers. For the policy uncertainty, the findings show that the earlier the stage of development, the bigger the uncertainty; and the more involvement the government in the sector, the less the preoccupation (Qian, Chan, & Choy, 2012). Another study conducted by Vakili-Ardebili explores the complexity of value creation in sustainable building design.

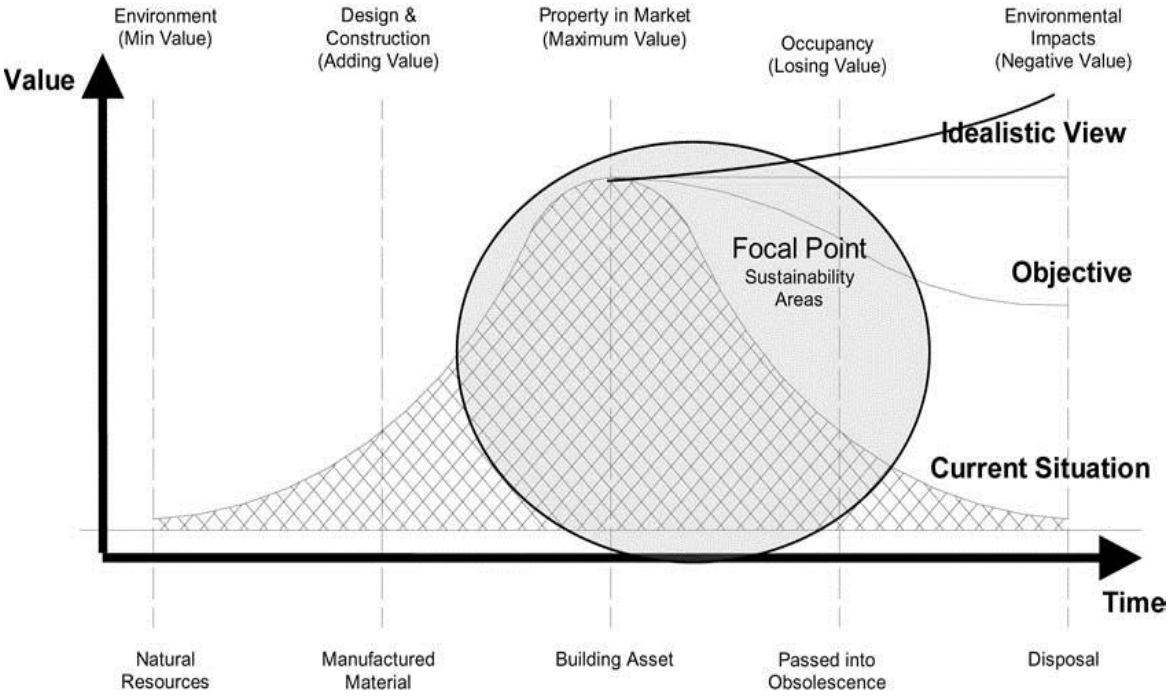


Figure 6 Flow of Design Value in Building Process (Vakili-Ardebili, 2007)

The value of a building is not stable even during its whole life. After a certain point, the building starts to lose its value. According to the author, with sustainability characteristics, it should be aimed to keep this decrease less or even convert it into an increase (Vakili-Ardebili, 2007).

3.5 Value Influensing Mechanisms of 'Certified' Sustainability in Properties

In almost all the studies analyzed for this thesis, it is concluded that green certifications cause asset value enhancement in some degree maybe only with few exceptions.

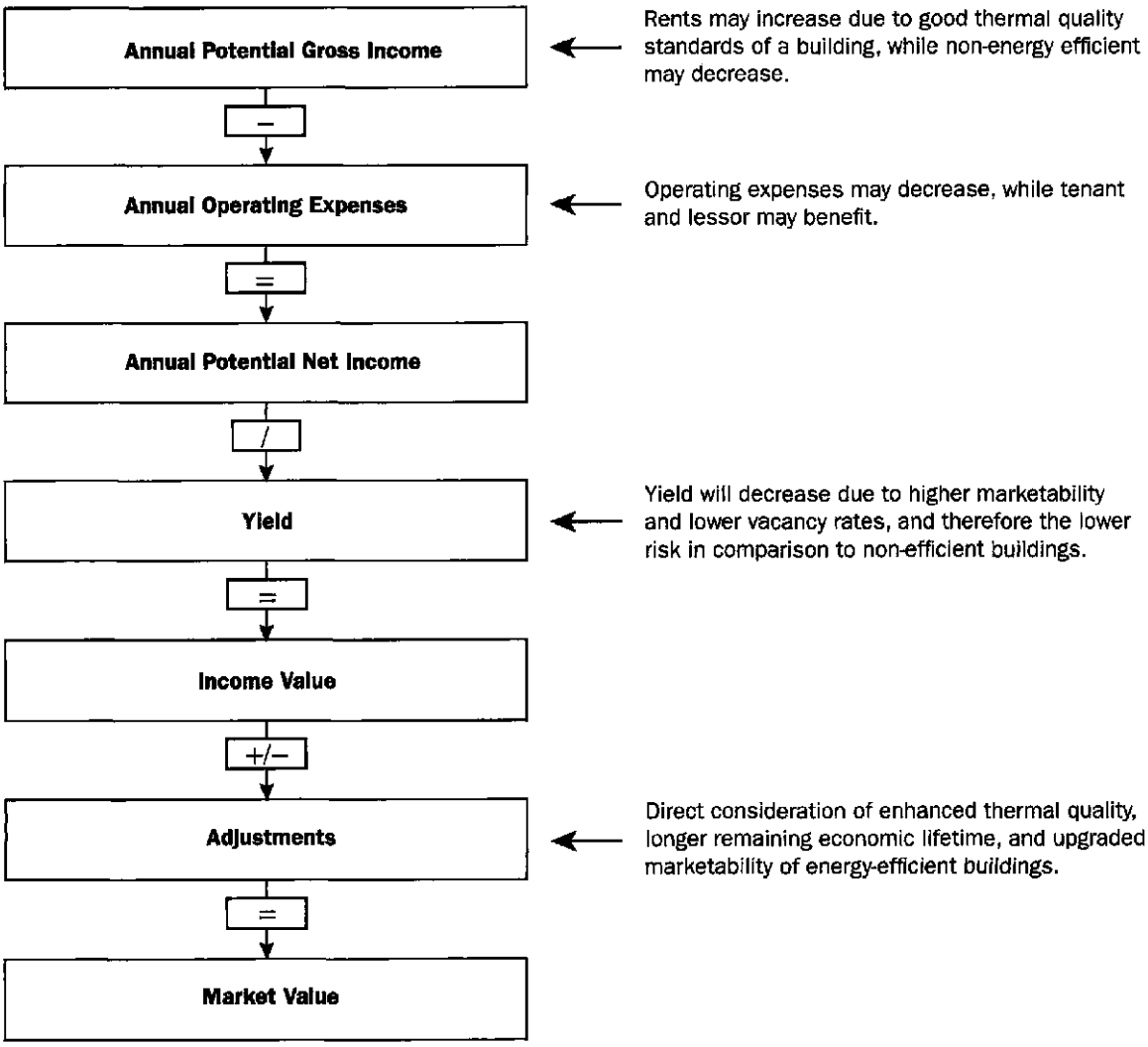


Figure 7 Potential Linkages for including Energy-Efficiency Characteristics into the Direct Capitalization Approach (Leopoldsberger, Bienert, Brunauer, Bobsin, & Schützenhofer, 2011)

This value increase is formed as a result of higher occupancy rates, higher lease and sale prices, lower operation and maintenance costs, lower risks, healthier and safer indoor environments, etc. In real estate sector, there are different valuation approaches such as sales comparison approach, cost approach and income capitalization approach.

However, among these, the one used mostly is the income capitalization approach, which is obtained through the discount of future income of the building and gets its present value, which is also described as “the process of capitalization” in the thesis of Nitzan and Bichler. A chart, shown in Figure 14, prepared by Leopoldsberger, Bienert, Brunauer, Bobsin and Schützenhofer, clearly identifies the steps of the approach for energy-efficient buildings. They try to find a proper way to integrate the market-proven added value of green buildings into property valuation. In the chart, ‘yield’ attracts one’s attention. As it is described by the authors, it is a coefficient connected with the risk. And they associate risk to marketability and vacancy rates. So their formula shows that the determinants of risk are the most critical factors in the property valuation process, because one divides the net income or future income into yield to calculate the market value of a building. In order to demonstrate the quantitative effect of energy-efficiency on value, they make 532 observations in 57 German cities. But the results show that the market did not identify yet energy efficiency as a special characteristic of a building because the energy efficiency did not affect noticeably the rents per square meter (Leopoldsberger, Bienert, Brunauer, Bobsin, & Schützenhofer, 2011).

There is another study conducted by Vimpari and Junnila using ‘yield’ to reveal the added value of green characteristics in real estates. The method used in this study is the discounted cash flow valuation. So, it has four key input parameters, which are rent, operating expenses, vacancy and yield. Here in this study yield is defined as discount rate minus inflation. First, the authors strengthen their argument; certified properties are more valuable than non-certified properties; with a comprehensive literature review. In this review, ten studies’ findings state increase in rents, four studies’ findings represent decrease in operating expenses, six studies’ findings express decrease in vacancy, two studies declare decrease in yield and six studies enounce increase in property value. And second, after the literature review, Vimpari and Junnila conduct interviews with eight experts, composed of two valuers, three investors and three developers, about an office building in metropolitan Finland. It is asked the experts to evaluate the office building first without a certificate and then with a premium (LEED Platinum) certificate for minimum, normal and maximum

conditions. All the participants value certified properties higher. What is unexpected for the authors is that yield is decreased in almost all of the responses. The authors describe yield, which measures risk, as the most subjective of the parameters and also the one having often the highest impact on property value. And although it is very subjective, a consensus on the decrease in yield hence in risk evaluated as surprising. Finally in this study, it is concluded that a green certificate increases on average the property value with 9% in the discounted cash flow valuation model (Vimpari & Junnila, 2014).

3.5.1 Value Influencing Mechanisms of Sustainability Characteristics in Properties

In the previous section in this chapter, it is explained how sustainability affects the property value. And basically, it is concluded that the risk reducing and income increasing aspects of sustainability affect the market value of a property. In this moment, it is seen a necessity to divide sustainability into its characteristics and tried to explain how these characteristics have impact upon the risk reduction and income augmentation variables in the valuation equation.

Sarah Sayce, who is a remarkable professor on property valuation from U.K., has published a study in the 11th European Real Estate Society Conference in 2004. In this study, she showed the impact of sustainability characteristics on the variables in property valuation equation.

Sustainability Factor	**Conduit**
Building Adaptability	Risk premium, cash flow, rental growth, depreciation
Accessibility	Rental growth, depreciation
Building Quality	Rental growth, cash flow, depreciation
Energy Efficiency	Rental growth, risk premium, cash flow, depreciation
Pollutants	Rental growth, risk premium, cash flow, depreciation
Contextual Fit	Rental growth
Waste and Water	Rental growth, cash flow, depreciation
Occupier Satisfaction	Risk premium
Occupier Impact	Risk Premium

Figure 8 Links between Sustainability Criteria and Worth (Sayce, 2004)

In this table, Sayce explains the effect of sustainability characteristics on value by relating each characteristic with which matter the most; risk and future income (Sayce, 2004). At this point, once again I'd like to mention about the equation of Nitzan and Bichler used for capitalization. They define the process of capitalization as the risk adjusted discounting of future earnings into their present value. So from an economic perspective, all the sustainability characteristics of a building boil down into risk and future income. In other words, the basic units to measure the benefits of sustainability become risk and future income. But as Nitzan and Bichler criticizes in their book "Capital as Power", these two are too ambiguous to determine. It's impossible to solve an equation with all unknowns. Also, past income cannot offer a scientific evidence for future income. Therefore we have to admit that valuation is not only an economic and/ or performance-oriented issue. As Nitzan and Bichler state, although present value calculation or capitalization seems like the problem of economy, they are rather the problem of politics. A group of decision makers or opinion leaders decide what increase the future income and what decrease the risk in sustainable property sector as it is done in all the other sectors.

3.5.2 Intangible Value Added Characteristics of Sustainability in Properties

To carry the impact of sustainability on property value a step further, the need for studying the sustainability characteristics in a more detailed way arises. Especially, if we take into consideration the dominant view about the existence of strong relationship between buildings sustainability characteristics and value, it's not surprising. To achieve this, many studies have been conducted. And one of the most remarkable among these studies was the study of Prof. Lutzkendorf and Prof. Lorenz, which was published in 2007 called 'Sustainable Property Investment: Valuing Sustainable Buildings through Property Performance Assessment'. In their article, they summarized the key performance indicators of sustainability in a table shared below. The researchers investigate the sustainability characteristics under four different categories, which are object, environmental, economic, and social performances or benefits.

Object characteristics/object performance		
Technical performance	Planned heat insulation class	Realized heat insulation class
	Planned sound insulation class	Realized sound insulation class
	Planned fire safety class	Realized fire safety class
	Planned load carrying capacity	Realized load carrying capacity
	Ease of conducting maintenance, servicing and recycling activities	Ease of conducting maintenance, servicing and recycling activities
Functional performance	Functionality and serviceability	Functionality and serviceability
	Adaptability and responsiveness	Adaptability and responsiveness
	Suitability for planned service life	Suitability for remaining service life
	Accessibility	Accessibility
Environmental performance		
Energy use	Primary energy demand during occupation (calculated)	Primary energy demand during occupation (measured)
Raw material depletion	Use of fossil fuels	Use of fossil fuels
	Use of mineral resources	
	Use of biotic/renewable resources	
Land use	Planned degree of sealing of the lot	Current degree of sealing of the lot
	Ecological value of the lot/change of ground quality	
	Planned land use per unit (e.g. number of workstations)	Current land use per unit (e.g. number of workstations)
Impacts on the environment	Global warming potential (GWP) 100 (CO_2-equivalent)	GWP 100 (CO_2-equivalent)
	Ozone depletion potential (ODP)	ODP
	Acidification potential (AP) (sulphur dioxide (SO_2)-equivalent)	AP (SO_2-equivalent)
	Eutrophication potential (EP)	EP
	Photo-oxidant formation potential	Photo-oxidant formation potential
Waste production	Waste production during construction processes	Waste production during occupation and use
	Total waste accumulation (by categories)	Total waste accumulation (by categories)
Impacts on soil and ground water of lot	Material selection subject to separate checklist	Impacts on soil and ground water of lot
Economic performance		
Life cycle costs	Construction costs	Costs for refurbishment and modification
	Projected maintenance and operating costs	Effective maintenance and operating costs
	Projected disposal costs	Effective/projected disposal costs
Development of income, value and/or worth		Income stream/current market value/current calculation of worth
Social performance		
Health of occupants/users		Appearance of Sick Building Syndromes/BRI
		Appearance of black mould
Comfort and well-being of occupants/users	e.g. thermal comfort measured as PPD/PMV	Occupant/user satisfaction
Safety of occupants/users		Number of building related accidents
Indoor air quality		Olfactory freshness
	Material selection subject to separate checklist	Concentration of selected substances (TVOC)
		Concentration of radon
Comfort and well-being of neighbours		Disturbance through building/use and occupation of building
Cultural value		Existing monumental protection

Note: PPD, predicted percentage dissatisfied; PMV, predicted mean vote; BRI, building related illness; TVOC, total volatile organic compound.

Figure 9 Possible Sustainability Key Performance Indicators (Lützkendorf & Lorenz, 2007)

In fact, also the authors of the study accept that in the current practice, the most commonly used valuation techniques do not so much pay attention to the performance of building. They state that the current market value calculation is simply rent divided by yield. But, they criticize the accuracy of these methods, and actually propose the use of an advanced property valuation method, which is hedonic pricing method (Lützkendorf & Lorenz, 2007). French and Wiseman voiced criticism also by stating "valuation profession has forgotten how to determine the

'worth' of a property from the viewpoint of the user" (French & Wiseman, 2003). So, there is much progress to be made in the current practice of value calculation.

3.6 Value Influencing Mechanisms of 'Certified' Sustainability in Companies

The real estate sector has concern a lot with the valuation of its product, which is the property. However, the for-profit organizations in this sector, which are the real estate investment companies, trusts and funds, seek most importantly for increase in the market value of their organizations as their counterparts do in all the other sectors. And increasing the value of the product is only one component of increasing the value of the company.

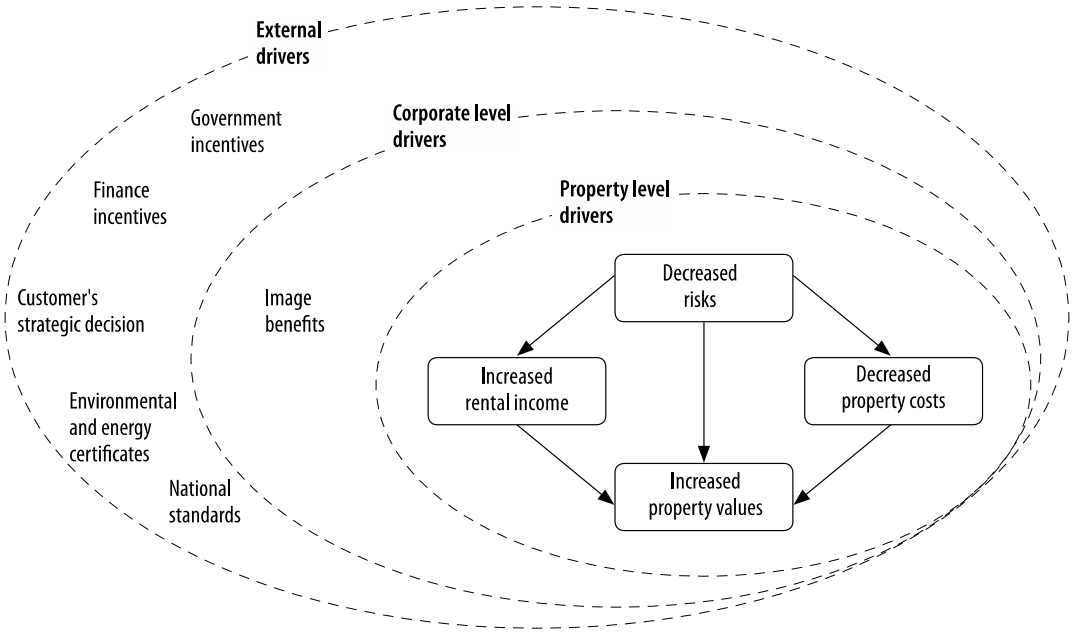


Figure 10 Framework of Drivers for Property Investor (Falkenbach, Lindholm, & Schleich, 2010)

As it is stated previously in the second chapter of this thesis, Nitzan and Bichler argue that in addition to tangibles of a company, it's also its intangibles and the optimism or pessimism of investors, which affect the market value of a corporation. And at this point, the green certificates play a central role. They are not only useful for property value increase but also serve for the corporation value increase.

In the study of Falkenbach and its colleagues, the drivers for the investors in real estate sector is represented in a chart shown in Figure 10. The drivers are

interconnected with each other. The property level drivers affect the corporate level drivers and vice versa. And the corporate level driver is the image benefits (Falkenbach, Lindholm, & Schleich, 2010). The market still tries to find an answer to the question of whether it is the "brand" value of green certificate or it is the better product quality, which causes increase in property and hence corporate value, because, as stated earlier, risk plays the most critical role in product and company valuation and it can be manupulated very succesfully with branding and advirtisements.

A study clarifies that the real estate investment trusts (REITs) including more LEED certified properties in their portfolios contain higher values in the stock market and higher price stability than the real estate investment trusts having less LEED certified properties (Eichholtz, Kok, & Yonder, 2012). Another valuation study, focusing at the corporate level on the issue demonstrates that being participated in the Energy Star program is worth 3.66 percent of a REIT's market value in the United States (Nadeau, 2004). In another study conducted by Eichholtz and his colleagues, exploring the relationship between the greenness of commercial properties and the stock performance of REIT'S in the United States show that there is no significant relationship between the greenness of REIT's portfolio and stock returns, however there is a positive relationship between the greenness and the equity returns of the company (Eichholtz, Kok, & Quigley, 2010). Another study from Singapure, trying to find the relationship between the operational and financial performance of REIT's and their degree of greenness in commercial properties concludes that there is also a positive relationship between those two, but it is lacking in giving information on market value (Hin Ho, Rengarajan, & Han Lum, 2013). So, despite a plenty of researches on the green building value, it cannot be found adequate data and research about the relationship between the green certificates and the green building investment company's value.

The investors divide into two inter se. One group of investor is the portfolio investor, which makes investments only to lease or sell their investment product, -the property, and the other group is the owner-investor, which occupies its invested property. For these two groups of investors, the role of green certificates in their

company valuation is different, because the image of being environment-friendly affects these two investor groups in different ways. For the portfolio investors, it is only a part of their products, which labeled as green, however for owner-investors, what is green is the building, which they occupy. The tenants are also belonging to this category. So, the image benefits change accordingly. The latter investor group or tenants do not have to be necessarily a real estate investment company. Any company, which occupies a green building run business in any sector, can be counted in this group. For example, an oil company can occupy a green certified or sustainable building and can take the advantage of 'image benefits' of green certification. So, the certificate can become a company marketing strategy and maybe a move to augment its market value. And this situation transfers the 'green certification' topic into another platform. Inevitably, the green building certificates or rating systems become an aspect for companies from any sector, which affect the company image and therefore also affect the public opinion about the company. So, it's not only environmental, social, or even economic benefits (lower maintenance and utility costs, incentives, etc.), but also the reputation benefits and corporate social responsibility mandates which forces companies to show an interest in the issue (Chegut, Eichholtz, & Kok, 2013). In this part of the thesis, because a special attention is given to the value influencing impact of certifications on companies, the matter of concern had shifted towards 'commercial' green buildings. But in the literature, the studies are also mostly related with 'commercial' green buildings. This concentration of concern on commercial properties is also attention-grabbing. Even though the studies do not directly deal with the company valuation itself, they focus on the building valuation occupied by companies and proves the importance placed on green certification by companies. Another reason for this importance concentration is explained also by the amount of impact obtained from commercial properties. Because a commercial property is usually occupied by one company or few companies, the positive impacts of sustainability characteristics have better effects for occupants. But because a housing project is occupied by many different apartment residents, the impact is shared between them and its amount decreases, so does its implementation.

While companies enhance the asset value of their commercial real estate with green certificates, they also do not want to sacrifice their short-term benefits. And the firms usually tend to take the biggest firms financial reporting and accounting practices as example. So in this situation, when those biggest firms try to integrate sustainability into their financial reports, so do all the other firms. Somehow, sustainability become something profitable also in short terms, just because the biggest firms of the sectors applied it to their reports. Ms. Aiello gives the example of the Big Four accounting firms – Pricewaterhouse Coopers, Deloitte Touche Tohmatsu, Ernst & Young and KPMGM -, whose financial reporting practices are imitated by many others (Aiello, 2010).

4 REFLECTIONS OF CONTROL AND MEASUREMENT ATTEMPTS IN PRACTICE

Along the whole study, the power theory of value, which is explained in detail in the second chapter and used to construct my point of view to analyze the better designed and further sustainable building production and valuation, conduced me to think outside the box. With this theory, Prof. Nitzan and Prof. Bichler contributed to the existing literature with the fact that the value is determined not by the abstract labor or utility but by the power that the absentee owners possess. It also represents the organized power of dominant capital groups to create the order of – or creorder – their society (Nitzan & Shimshon, Capital as power: Toward a new Cosmology of Capitalism, 2012). Hereby, the value means the stock exchange value of corporates. That is to say, it's not the value of a building or any other product. In the previous chapter, how the certified sustainable buildings affect the corporates' value ingathered under a specific title. And, what is intended to say with the order and creorder of the society is, the management of production and consumption patterns by corporates in favor of their value increase and differential accumulation. It is this statement, which helped me to see the whole 'improved' designed and sustainable building – production, valuation and consumption mechanisms form an upper scale.

There is a growing tension between capitalism and democracy. The injustice in income distribution, the increasing unemployment rates and the exploitation of nature all cause this tension. So, the capitalists – the dominant capital owners- try to cope with this problem. According to the power theory of value, it is never the battle for utility or growth but the battle for capital concentration i.e. power concentration on a slippery ground, which dominates the industry and the valuation praxis. There isn't anything else more frightening for the capitalists except for the collapse of the economic system that they possess. There are already too many unsteady dynamics. Macroeconomic conditions, crises, zeitgeist, legitimization-obedience, real and false risks do all affect the production and consumption activity so the economic system.

Therefor, a way to reduce and diffuse the poignant reaction, which might come from large masses, should be certainly found. At this point, the socially responsible investments (SRIs) play a vital role. What could be more advantageous and safer than representing yourself as socially and environmentally responsible, while the power or capital concentration battles go on without any change in the system! This is one of the most important reasons lies behind the will of capitalists for the certifications in the construction sector. In other words, to obtain profitable sustainable buildings is fundamental, but it is not the only reason behind all this effort. The other reason is to decrease and diffuse the resistance against power concentration, which is in a constant increase. According to the Veblenian "strategic sabotage" concept, the power should be capable of overwhelming the resistance to power (Bichler & Nitzan, 2017). An example could help here to clarify this situation. A British supermarket chain called Waitrose was inviting its employees to be a part of the company as a 'partner' or 'entrepreneur' in 1911 in an economic depression era in the United Kingdom, in order to create a pressure (or a sabotage) and to prevent their unionization with the ordinary workers. In this way, the employees don't utter a word even when their workmates are discharged or their wages are decreased (Ogurlu, 2015). This is not different from running a business for differential power/ capital concentration through the exploitation of employees and nature but constructing or occupying certified sustainable buildings, or producing environmentally engaged technologies, appliances and materials. This isn't anything else than pretending that you pay regard to the environment and the society and, diffusing the counter resistance. In fact, when the solution seeking for environmental or social concern is given to the possession of the exploitation/ pollution doers, it started to lose all its forthrightness. This is just the same for the property sector. So, a fracture was experienced. To understand better this fraction and observing the practices from an upper scale, an interface by decades synthesizing the impacts of value measurement and control mechanisms on the socially and environmentally engaged architecture is prepared. And, it is integrated into this chapter in pieces considering the decades.

It is always stated that capitalist economic system brings into life many opportunities. This is actually quite true but deficient. Here, the question of 'the

opportunity for what' arises. Is it the opportunity for pluralistic approaches to production and design or the opportunity for more differential capital accumulation? According to Veblenian point of view, till a certain point, they are nip and tuck. However, after that certain point, the controlling actors or the engines of the human mega machine of valuation in the property sector, which are the institutional investors and the institutions, govern the machine for the sake of 'differential accumulation' as in all the other sectors. Here, the particles of differential accumulation or differential capitalization are declared as hype, risk, discount rate and future income. And the charts below explain the process of this accumulation so the particles' determination with the revealment of the major actors, the control mechanisms and the consequences.

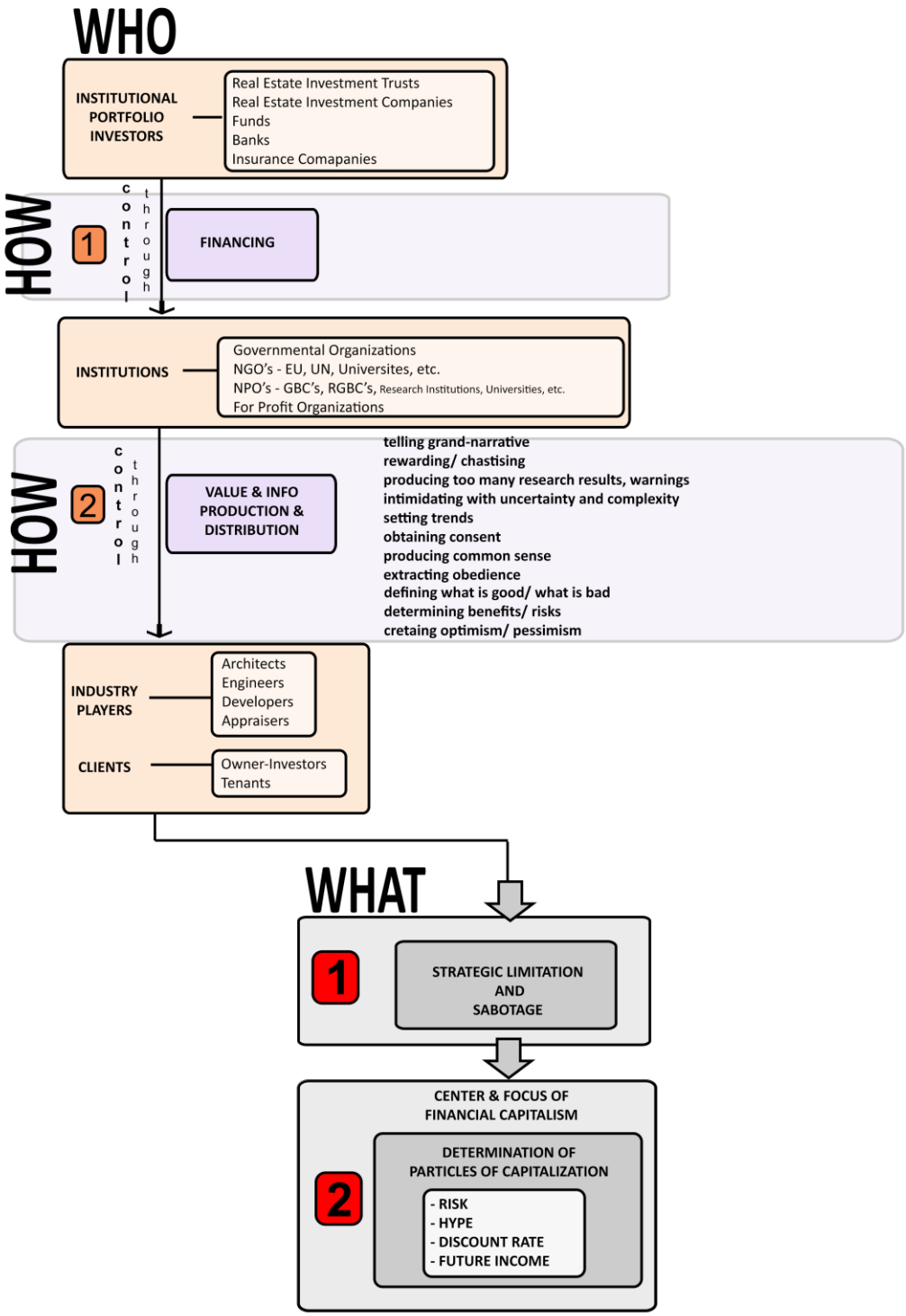


Figure 11 WHO-HOW-WHAT Model: The Institutional Measurement and Control of Sustainable Building Production

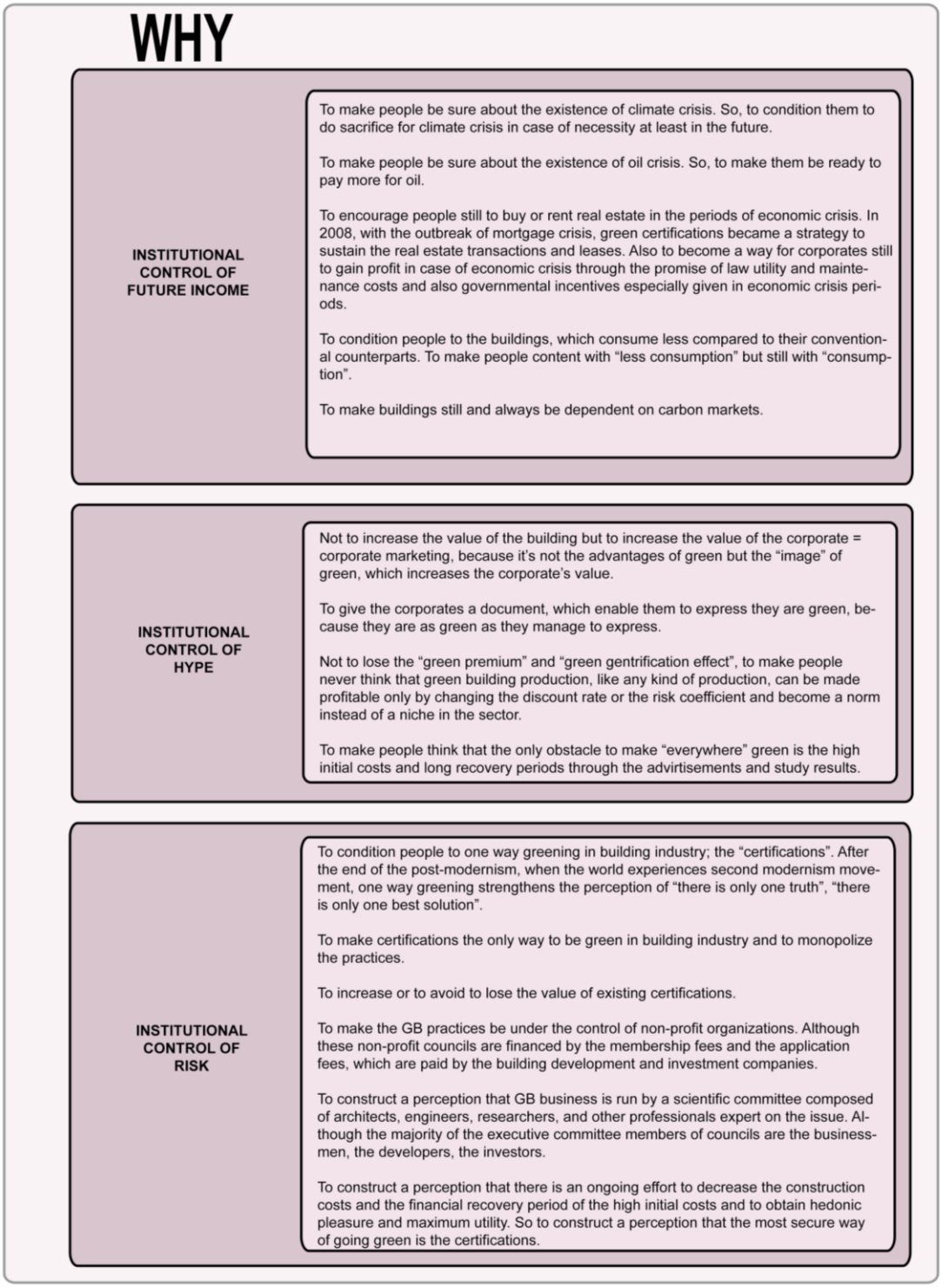


Figure 12 WHY Model: The Institutional Measurement and Control of Sustainable Building Production

As it is further discussed in detail in the upcoming part under the title of 'the emergence and growth of a new market in 90's and 2000's: certified sustainable building market', improved design of 90's and sustainability of 2000's are used to

serve as a value adding parameter and also as a sales strategy in property sector through the controlling mechanisms explained in the charts above. And this has resulted in the monopolization and strategic limitation of improved design and sustainability. So, the opportunities promised by capitalism are in fact not as they seem. The capitalist economic system, which we suppose providing us endless opportunities, actually throws us a bone and then similarize all different colors and cause stereotypical production.

4.1 The ever-changing Structure of the Economic System so the Architecture's

Architectural rhetoric and tectonic could not be separated from the issues of money. It's not only because architecture has a very big market but also because it has the power to reflect the current economic and political developments through its imagery communication capability. The practitioners of a profession with such an ability, nominately the architects, not surprisingly, have to determine their position in the current system. So, the ever-changing structure of the economic system has created an architecture with an ever-changing structure. Money affects all the architectural production and so all its stakeholders, such as investors, developers, designers, occupiers and even media employees. In this case, it felt the need to investigate chronologically this ever-changing network of relationships, which are affected by the ever-changing financial targets. The rate of urbanization by major area in the interface was prepared from the United Nation's report called World Urbanization Prospects – The 2014 Revision (United Nations Department of Economic and Social Affairs, 2014). Even though the interface prepared for this thesis starts from the 50's, it is considered beneficial to mention also about some important persons and organisms, which affected the history of the capitalism and architecture relationship.

In the late 19th and early 20th century, Germany has become the third most powerful state after U.S. and U.K., and has won the majority of the Nobel prizes of that time. It was also at this time, when the German Werkbund's most famous intervention "display window" (das Schaufenster) has been made. The arrival of shopping

palaces, market capitalism, the creation of a technically advanced but intellectually hollow civilization, the emergence of window dressing, small luxuries' happiness improvement have all come together and created the German Werkbund as a national taste-educator or promoter (Kogod, 2014). Here, all these efforts for the taste cultivation of German people by German Werkbund served primarily for the economic elevation of Germany rather than its cultural elevation. So, design had affected the consumption habits of a country.

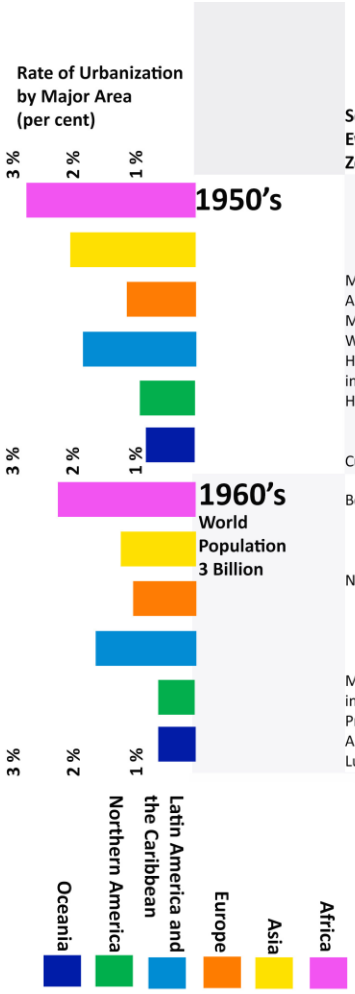
Another example again from Germany shows this time how the current economic context affected the design. Walter Gropius, the founder of the Bauhaus School, was trying to persuade the industry to collaborate with Bauhaus, because the school was in need of financial support and funding in between the two World wars. With these financial concerns, Gropius designed and have built the Haus am Horn for the Bauhaus's 1923 first large-scale public exhibition. Here, 'the invisible hand' of the market had a part in design decisions, and the house and its furnishings and technical equipment have constituted of its time's most elite examples to be a showcase by itself. So, it has become an unreachable luxury object and created a contradiction between the modernism's ideals advocated by Bauhaus and reality (Schuldenfrei, 2014).

In the chronologic investigation of the relationship between political economy and architecture, certainly, Le Corbusier appears as one of the most challenging figures. His passion for 'big work' and creation of 'grand narrative' or big story behind it, his pursuit for a political mechanism that supports this 'big work', but at the same time his critiques on the 'emptiness of capitalist consumer culture' make his position and perspective challenging and confusing. His hybrid advocacy between American Taylorism and Russian communism was contradictory. Although the big financial crises of his time led to a loss in his faith in capitalist economic system and he mentioned about a need for revolution from time to time, his projects as The Infinite Museum, de l'Esprit Nouveau city plans, The Radiant City, served for and within the capitalist economic system. He embraced the ideas of economist Bataille, who talks about the necessity of spending 'excess energy' – wealth - through luxury and war. He celebrated and supported the welfare state city image and citizen lifestyle. (Gans, 2014).

4.2 Pluralistic Environmentally and Socially Engaged Designs in Visionary 60's, Solar 70's and Postmodern 80's

After the end of the WWII, till the US stagflation crises in 1970, especially in France, in West Germany and in the US, it was experienced an economic boom. French president De Gaulle's economic strategy between laissez-faire and state control, Germany's jump in research and development, Kennedy's presidency in US applied the Keynesian welfare-warfare economic policies led the Golden Era of Capitalism – Trente Glorieuses. The welfare state introduced by British economist Keynes, aimed at providing health care, social services and social security for all, caused the elimination of risk. And while this economic path worked quite well in Japan, the same success couldn't be achieved in the Western world because of cultural differences (Ferguson, 2009). However, the welfare system remained as the main ruling mechanism of economy till its collapse in 1970's. And this system, which ended up with risk elimination, augmented excessively the expenditures in western civilizations. This period witnessed also the modern architecture, which embodies the ideals and manifestations hold to account for environmental degradation. The limitless access to petroleum, the mass manufacturing of cars, the introduction of escalators and HVAC systems, and the development in telecommunication technologies have started to reshape the built environment, exploit nature and threaten the non-renewables. .

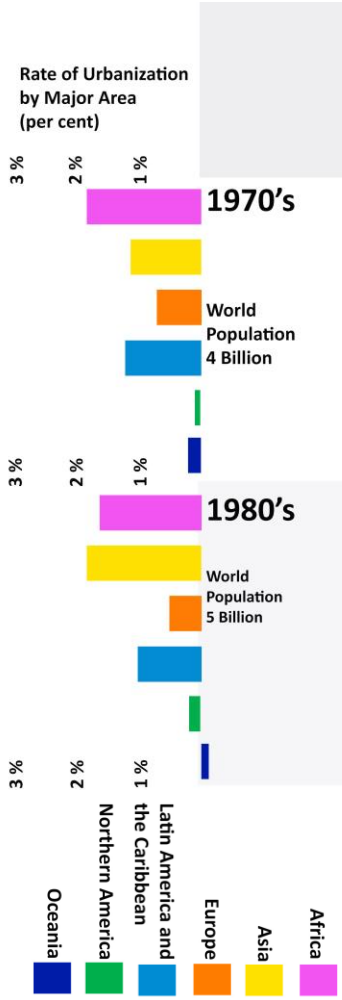
While the constant and stable economic growth continued, the post-war Europe was being reconstructed and the US was busy with realizing "the American Dream" through the construction of suburban towns causing the urban sprawl. Consumerism and pop culture has come to the forefront. As the leading situationist Guy Debord explained in his famous book " The Society of the Spectacle" published in 1967, the era of spectacle has appeared in capitalist societies. But at the same time; the US-Vietnam war, the construction of Berlin Wall, the increasing racism and sexism and nuclear energy related risks were turning up pressure. So for the first time in history, in the 60's, hippies in the West/ Southwest of the US and situationists in



	Socioeconomic Events & Zeitgeist	Wars	International Institution Establishments	Crises & Risks	International Agreements	Architectural / Social Theory & Practices	Environmental Theory & Studies	Environmentally& Socially Engaged (Improved) Building Design	Building & 'Improved' Design Valuation
1950's	Marshall Plan ends American Civil Rigts Movement Warsaw Pact Hungarian Upris-ing(USSR invades Hungary) Cuban Revolution	US-Vietnam War started	NATO established European Economic Community (EEC) formed	After the WWII - Nu-clear Energy Related Risks		Antonio Gramsci - Prison Notebooks Unite d'Habitation - Le Corbusier Team X formed William W. White - The Organization of Man Guy Debord - Naked City Gaston Bachelard - The Poetics of Space			Cost Studies Building Price Books
1960's World Population 3 Billion	Berlin Wall built New York World's Fair May '68 Student Riots in Paris Prague Spring Apollo 11 - Lunar Landing		Organization of Petro-leum Exporting Coun-tries formed (OPEC)			Mario Tronti - La Societa e la Fabbri-ca Gruppo 63 formed Archigram - Plug-In City Bernard Rudofsky - Architecture without Architects Robert Venturi: Complexity and Con-tradiction in Architecture Jacques Derrida: On Grammatology Guy Debord: Society of the Specta-cle IAUS formed Manfredo Tafuri: Theories and Histo–ries of Architecture - A Critique of Architectural Ideology	Rachel Carson - Silent Spring Whole Earth Catalog 1968 - by Steward Brand	Victor Olgyay: Design with Climate - book Buckminister Fuller Drop City 1965-1977 Zomeworks Archigram Superstudio - mid 1960's Paolo Soleri - Arcosanti 1970 - present	Cost Studies of Build-ing Elements Cost-Benefit Analysis Operational Bills Cost Planning Value for Money in Building

Figure 13 Interface – Part I: In the Growth of Control – Socially and Environmentally Engaged Architecture and Value Measurement and Control Mechanisms – 50's, 60's

Paris centered Europe composing the counterculture sought for a third way other than capitalism and communism. And, architecture so "space" design has become the main apparatus for this change. On one hand, the world was seeing a dutiful architecture responsible for building repetitive blocks for dwelling, working, education, entertainment, etc. inherited from Le Corbusier and modern architecture in the Cold War landscape. But on the other hand, the hippies and situationists were theorizing "space" (Sadler, 2014). Visionary, experimental, pluralistic, critical, bottom-up, individually experienced, socially and environmentally engaged projects were taking place in the post-war era. The iconic hippie building, the geodesic dome of Buckminster Fuller, designed to resist division, has become also one of the pioneering architectural projects of the environmental awakening. The Drop City, with its geometric structures inspired from the geodesic dome of Fuller, built by a group of art students, has become the first rural community making experiments with solar technology and found materials. Zomeworks founded by Steve Baer and composed of polyhedral structures again inspired by the geodesic structures using active and passive solar systems has offered another alternative way of building and living. The metabolism movement in Japan advocated by the architect Kisho Kurokawa likewise has provided an alternative to urban planning. The imaginary cities of Archigram and the "continuous monument" of Superstudio searching the way to free architecture from urbanization have also become the radical pioneering examples of visionary green architectural beginnings. Also for the first time in history, some books were published making a wake-up call for environmental concerns. "The Silent Spring" by Rachel Carson was an environmental science book published in 1962, which documents the effects of the widespread use of pesticides (especially DDT) on the environment. "Design with Climate" by Victor Olgyay published in 1963 was also one of the pioneering books proposing a bio-climatic approach to architecture and introducing first green building design principles. In 1968-1972, Steward Brand launched the issues of "The Whole Earth Catalog". In the catalogs, Brand was collecting and indicating all the available information about the



Socioeconomic Events & Zeitgeist	Wars	International Institution Establishments	Crises & Risks	International Agreements	Architectural / Social Theory & Practices	Environmental Theory & Studies	Environmentally& Socially Engaged (Improved) Building Design	Building & 'Improved' Design Valuation
US Stagflation	US - Vietnam War ended	United Nations Environmental Program (UNEP) established 1972	The OPEC Oil Embargo - Oil Crises 1973	Blueprint for Survival 1972 (Sustainability Concept first introduced)	Superstudio - Continuous Monument - Histograms of Architecture	Limits to Growth - book- 1972	Architects had no environmental vocabulary pre 1970's - Van der Ryn S.	Cost Modelling
Oil Crises					Archizoom - No-Stop City	Theoretical Foundations of Deep Ecology by Arne Naess - 1973		Cash Flow Forecasting
Group of Six -first meeting (now G7)		Organization of Arab Petroleum Exporting Countries (OAPEC) formed			Rem Koolhaas: Involuntary Prisoners of Architecture	Eco-feminisim 1974	1970's: Solar Architecture and Bioclimatic Design	Building Maintenance Cost Concerns
Microsoft incorporated					IAUS Oppositions	Low Energy Lifestyle 1975		
Apple Computer founded					Manfredo Tafuri: Architecture & Utopia	Renewable Energy 1976	Hassan Fathy 1975	Value Added Tax/ Taxation
					Colin Rowe - Mathematics of the Ideal Villa			
					Lefebvre: The Production of Space			
					MOMA/OMA established			
UK Election of Margaret Thatcher			Oil Crises 1979		Rem Koolhaas: Delirious New York	Permaculture 1978	SBCI -Sustainable Buildings Industry Council - founded	
Ronald Reagon implied supply-side economic policies					Zaha Hadid - "Peak Competition Winner"	Recycling 1982		Life Cycle Costing
						Ecological Modernization - early 1980's		Cost Data Explosion
					AUTOCAD Software	Environmental Justice - early 1980's	Critical Regionalism - Kenneth Frampthon - 1983	
			Ozone Hole 1984 Global Warming 1985		Bernard Tschumi: Parc de la Villette			Cost Engineering Techniques
					Deleuze & Guattari: A Thousand Plateaus			Value Engineering
		Single European Market Act		Brundtland Report 1987 - our common future - modern definition of sustainable development				Construction Industry Analysis
			Worldwide stock market crash - "Black Monday"		MOMA: Deconstructivist Architecture	Sustainable Development 1987	Bio-Regionalism 1986	
Berlin Wall fell								European Comparisons

Figure 14 Interface – Part II: In the Growth of Control – Socially and Environmentally Engaged Architecture and Value Measurement and Control Mechanisms – 70's, 80's

current tools, materials and technologies for experimental, self-built housing. Through its D.I.Y. (do it yourself) ethic and living-off-the-land know-how, the catalogs fascinated a generation with the promise of an alternative living (Ouroussoff, 2007). Neither these projects nor these books were intended to be specifically "green" or "sustainable" or promoted and applied by the mainstream culture. On the contrary, they were the forthright reactions of some young adults, scientists and architects against the endless consumption and discrimination of the consumerist culture. Therefore, they were not controlled or measured by the economic system as well. The cost-benefit analyses, cost of building elements or value for money in building studies of 60's in the valuation field were interested in the productions of the mainstream culture. The post-war era building boom has resulted in the 'mass' construction of an awful lot of buildings. And together with the increased concerns on the efficiency of mass production of the time, these cost measurement and control studies focused on the products of the building boom. Also in 1960, American President Eisenhower has approved the Cigar Excise Tax Extension, including the REIT Act, and generated a new approach for income-producing real estate investment. With this act, stock-based investment has been enabled also for real estates. So for the first time in history, instead of purchasing physical real estates, the small investors got the opportunity to invest in shares of large-scale real-estate securities as a typical asset (Thomas, 2012). Neither the building valuation field nor the REIT's has ever directed their attention to the constructions of the counterculture. Also, the main reason why these young adults write or built these works would have never been the economic concerns. That is also why they were vibrant, experimental, free-spirited, pluralistic and visionary.

The 70's have experienced a welfare crises resulted in stagflation and the authorities were in need of a reason to terminate "the dolce vita" of the welfare state in the western societies. And, the oil crises of 70's (first in 1973 and then in 1979), of which the existence is still speculative and uncertain, worked quite well for the social engineering of the whole world for this change. So, 70's have become the decade of

environmental movement. The very first environmental legislations and policies in the US and in Europe, the first green parties, the first environment ministries, the introduction of "sustainability" concept in Blueprint for Survival in 1972, the first UN Conference on Human Environment resulted with the launch of UN Environment Programme, the foundation of Greenpeace, the first World Climate Conference in 1979 in Switzerland have all caused an intellectual and a behavioral change in the world. "The Limits to Growth" was published by the Club of Rome in 1972, which warns about the carrying capacity of the world's non-renewables and the growing world population reaching to its limits. The environmental study and theories such as deep ecology, eco-feminism, low-energy-lifestyle, renewable energy and permaculture were all introduced. And in the architecture and urban planning field, for the first time in the history, the climate responsive building design theory was put into practice. Until 1970's, architects didn't even have an environmental vocabulary (Van der Ryn & Cowan, 1996). The Middle East oil embargo has increased the public awareness and gathered momentum for solar architecture. The return of solar houses after the WWII has been seen in the south west of the US. The passive solar design solutions and the active systems integrated to buildings have constituted the two main paths. The energy-efficient experimental houses emanated in Germany and the solar settlements built with the state programs spread to Europe have dominated the environmental architecture activities of the decade. In addition to architect's attempts, it was also the homeowners, searching for the alternative ways of using the energy efficiently in the houses and implementing solar technologies to the buildings. And they have contributed to the architectural integration with solar technology. While these developments were happening in the green architecture field, the building valuation profession was dealing with the cost modeling, cash flow forecasting, building maintenance cost concerns and value added taxation. So it was still more cost-oriented rather than value-oriented. But for sure, the initiated attempts to predict and control the cash flow and maintenance costs of buildings were the result of economic and environmental troubles of the 70's.

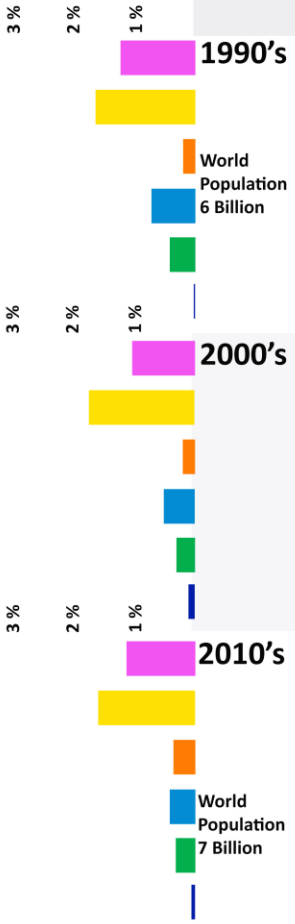
The 80's have seen the occurrence of many international environmental agreements, protocols, and reports. In 1983, the German Green Party was established, and entered to the parliament. In the same year, the UN has assigned the World Commission on Environment and Development. In 1985, the Corine programme, collecting the European-wide environmental data, has started. The concepts of ozone hole (1984) and global warming (1985) were introduced. Unfortunately, in 1986, the Chernobyl disaster has happened. In 1987, the Brundtland Report called "Our Common Future" has defined the concept of sustainable development. Again in 1987, the Montreal Protocol has been signed to fight against the ozone layer depletion. And in 1988, the International Panel on Climate Change has been hold. 80's were also the decade of postmodernism. The "placeless" and performance-based modern implications of solar architecture of 70's have been replaced by contextual and vernacular reinterpretations of postmodern times. In this decade, phenomenology, symbolism, historicism, critical regionalism and contemporary vernacular were the terms, which occupied the agenda. The 80's also supported the new urbanist principles favoring completely planned and controlled environments. The new urbanism movement was generated as a reaction against the suburban sprawl in 60's and 70's. And it supported the compact, mixed-use settlements and city planning strategies (Tabb & Deviren, 2013). 80's were also the decade when the supply-side economics or the "Reaganomics" were applied in the US. According to this economic theory, it is assumed that the economic growth could be achieved through the supply of goods and services. And, the supply creates its own demand. This economic theory is, in this sense, antipodal with the Keynesian economic theory. Keynes had advocated that demand was the trigger of a wealthy economy. Therefore, boosting the welfare-level to create demand became the main target of Keynesian welfare state. But, in 80's, with the understanding of the failure of this strategy thorough the stagflation crises of 70's, its opposite was tried. And it was attempted to achieve economic growth this time by motivating the suppliers – the investors- thorough the various tax cuts and incentives. And naturally, such an economic system finished the bottom-up, experimental and free-spirited production. The economic policies introduced in UK by the presidency of Margaret Thatcher and in US by the presidency of Ronald Reagan were also associated with neoliberalism.

Neoliberalism has rejected the governmental control over economy but; favored free trade, deregulation, privatization also reduced government spending. Within this context, architecture also became a profession, which could be performed as long as it keeps pace with this system asserted as liberatory and moreover it became one of the mediums legitimizing this system. In the building economics field, the sector started to deal with life cycle costing, project management, cost engineering and value engineering. After the oil embargo of 70's, the construction costs has become an important topic. While the manufacturing industry was getting more and more automated, the efficiency issue in the building industry also constituted an important part of the research agenda.

4.3 The Emergence and Growth of a new Market in 90's and 2000's: 'Certified' Sustainable Building Market

90's have seen the end of cold war, disbanding of Soviet Union, opening up of Chinese and Indian markets sequentially to the world, the rise of neoliberalism, globalization, dot.com.boom and the new world order/ the new economy. The world has been scudded from the 'separation' culture imposed by modernism towards the separation of cultures. The occupations like marketing, software programming, and design have come into prominence by creating big economical impacts, and each has created its own culture. In addition to the cultures of natural and human sciences; the cultures of politics, business, media, army, religion, and education have been distinguished and even the cultures of risk, violence and self-rule have emerged (Caraça, 2017). High-tech computer aided, post-critic, client-oriented design practice, the marriage of art and capitalism, and the conformity of icon-making and city-making have accompanied the design inflation (Foster, 2004). Product has turned into a manipulable data rather than a purchasable object (Spencer, 2016). Especially, after the mid 90's, architecture has started to publicize neoliberalism explicitly. As it is stated by Rem Koolhass, architects are not obliged anymore to pay attention to social responsibility and free to serve to the market (Jones, 2014). In 90's, the Clinton presidency allowed pension funds to participate in REIT investments. While the total capitalization of US REIT market was less than 1.5 billion

Rate of Urbanization by Major Area (per cent)



	Socioeconomic Events & Zeitgeist	Wars	International Institution Establishments	Crises & Risks	International Agreements	Architectural / Social Theory & Practices	Environmental Theory & Studies	Environmentally& Socially Engaged (Improved) Building Design	Building & 'Improved' Design Valuation
1990's	German Reunification China opened up its markets (1992) India opened up its markets Soviet Union disbanded W3C founded to regulate the internet the Warsaw Pact was dissolved	US - Persian Gulf War started ended	World Business Council for Sustainable Development established (WBCSD) 1992) EU Establishment WTO (World Trade Organization) Establishment EURO Currency		UNCED=Earth Summit I, 1992 Agenda 21, 1993, Rio, a document promoting sustainable development Earth Summit II, 1996 Kyoto Protocol, 1997	Bernard Tschumi: Event Cities Rem Koolhaas: Eurolille Project S,M,L,XL Jacques Derrida & Peter Eisenmann: Chora L Works OMA established AMO (research wing)		BREEAM established 1990 USGBC founded 1993 Eco-Tech Green Building Design_ Ken Yeang, Norman Foster, Richard Rogers, Santiago Calatrava, Herzog de Meuron, Renzo Piano, Grimshow Ecogical Design book by Van der Ryn S, Cowan S LEED established 1998	Value Management Risk Analysis Added Value of Building and Design Building Sustainability Information Technology Whole Life Costing 1999 Measuring Sustainability studies started 1999
2000's	9/11 World Trade Center Towers destroyed by terrorist attacks Facebook launced Twitter launched	US - Afghan War started US - Iraq War started		Sub-Prime Housing Crises Global Financial Crises and Recession European Sovereign Debt Crises	Kyoto Protocol, went into operation, 2005	Rem Koolhaas: Harvard Guide to Shopping Revit Software	Al Gore: An Inconvenient Truth - 2006	HQE established 2002 2000's: Green Urbanism Integral Urbanism Combinatory Urbanism Network Urbanism Ecological Urbanism Germany's Eco-Districts: Kronsberg, Vauban DGBN established 2008	Studies about the Value of 'Certified' Sustainable Buildings started 2004
2010's	European Central Bank bought up EU Sovereign Debt Arab Spring Occupy Wall Street Occupy Gezi	Syrian Civil War started Ukraine Conflict Yemeni Civil War started		Worldwide Terror Attacs Terror Related Risks	Kyoto Protocol - First Commitment Period _ 2008-2012 Kyoto Protocol - Second Commitment Period_ 2013_2020	Rem Koolhaas: Shenzen Stock Exchange		2012 There can't be one definition of sustainability. - by Simon Guy	Green Real Estate Sustainability Benchmark (GRESB) founded 2010

Figure 15 Interface – Part III: In the Growth of Control – Socially and Environmentally Engaged Architecture and Value Measurement and Control Mechanisms – 90's, 00's, 10's

dollars in 1972, it has become 500 billion dollars in 2014 (Zaera-Polo, 2014). Especially with the empowerment of REIT's, the cities have been converted from physical places to liquid assets. The aversion to risk and rate of return have accounted for the most significant characteristics of a construction project's feasibility. And as a result, a "value-driven genericism" as described by Alejandro Zaera Polo has taken place. Rem Koolhaas's market-driven design concept "the generic city" has embraced the financialization of the city. Instead of seeking for culture-, climate- and site-specific solutions to environmental and social degradation, the "McDonaldization" of the construction sector has been seen all over the world.

90's have also become the decade of international dedication to sustainable development and underlined the significance of environmental information. In 1992, in the UN summit on the environment and development in Rio de Janeiro, the Agenda 21 programme has developed and signed by the member states to mitigate the climate change and biodiversity loss. In 1994, the first genetically modified food crop has launched to the market and raised many controversial environmental opinions. In 1994, The European Environment Agency (EEA) has been established in Copenhagen. And in 1996, it has released its first report on environmental taxes. In 1997, the Kyoto Protocol has signed in Kyoto, Japan. It has introduced particular aims and deadlines to diminish the global greenhouse gas emissions.

In the 90's, the environmental degradation, climate change, biodiversity loss and social injustice phenomena enabled the new productions in the property sector. Different environmentally attuned building and urban designs have taken place. The pioneering examples of eco-tech green building design of starchitects, the German PassivHaus approach and the European eco-towns were seen. Also in this decade, the new productions, which are the better designed (as it is mostly used in1990's) and sustainable (as it is mostly used in 2000's) buildings, have become eligible with their increasing numbers to be classified in underwriting and finance sectors under a specific category. While the valuation of buildings go back a long way from 60's, the researches on the value adding capacity of being socially and environmentally engaged or 'better' designed buildings started to be observed after 1990's. At this point, the year 1999, with the start of added value studies of 'sustainability', is remarkable. The green building councils, which were established in the beginning of 90's, and the sustainability rating systems they developed, caused a notable increase in the number of sustainable buildings. However, while the sustainable buildings experience a significant increase in numbers on account of the establishment of councils and certifications, they started to resemble progressively more each other in terms of quality. And this amplitude in numbers and similarity in quality made this topic a research area and a new market. This also bred the categorization of sustainable buildings in the finance sector. If we read backward, in order to obtain a new product in the finance sector, sustainable buildings could be augmented and made resemble each other. But whatever the process is, the finance sector has already turned this product into an income generating investment. At this point, it is striking that the studies made in valuation field are for the market value increase rather than for the quality increase or the use value increase. Here, I don't even mention about social, environmental and cultural values. Risk aversive and financial return oriented finance sector evaluates all this production through these two concepts – risk and profit-. And the researches also focus on determining the relationship between these two terms and exchange value. For sure, a sector, which has commitment to reduce the financial risks, has to be very deliberate towards the diversity and discrepancy, because the pluralistic approaches destroy the controllability and verifiability of production. And this means the increase of financial

risk. As it is described in the previous chapter, the system perceives uncertainty and complexity as a problem to be solved and orients the problem solving studies in this direction. If the sector continues to pay no attention to the use value also to the environmental, social and cultural value of buildings and focus only on the exchange and image value, one day, all the certification schemes could unite and only one valuation method was left. Actually, and not surprisingly, the sector used already utmost one method, which is the investment method/ discounted cash flow analysis. This method, which is the risk adjusted discounting of expected future earnings into its present value, so the 'capitalization' in the words of Prof. Nitzan and Prof. Bichler, is the core and focus of financial capitalism and it only serves the finance sector. The sustainable buildings evaluated with this method could only increase the stock exchange value of their investors and, as Prof. Veblen described in the 19th Century, cause the "sabotage" of the production. In other words, they restrict the quality and creativity of building production and lifestyles. And they also limit the pluralistic approaches and cause monopolization.

Figure 16 is published in the Business Case for Green Building Report of WGBC. It gives clues about the stakeholder perceptions on green building business. Tons of study results in favor of green building construction and advertisements help actors to construct these positive perceptions on the business.

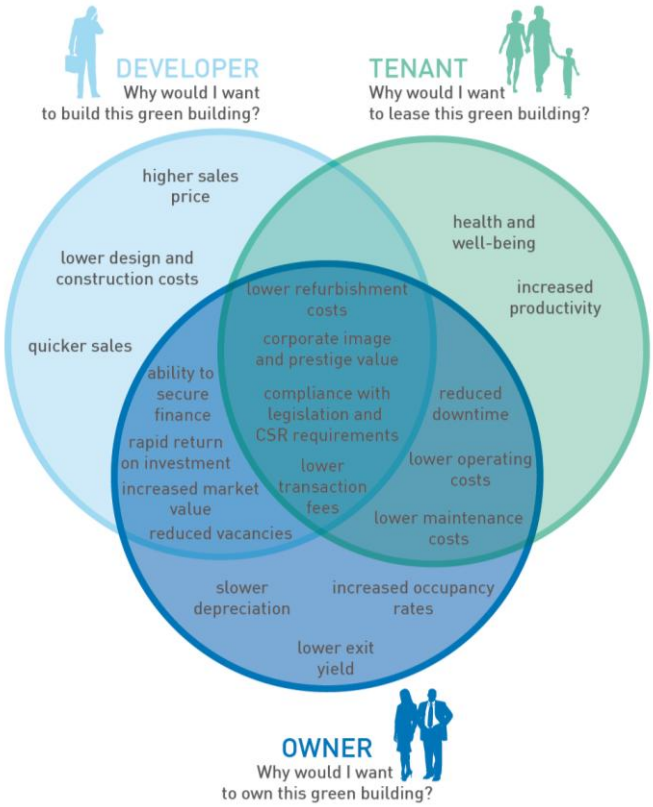


Figure 16 Stakeholder perceptions that affect the value of green buildings (World Green Building Council, 2013)

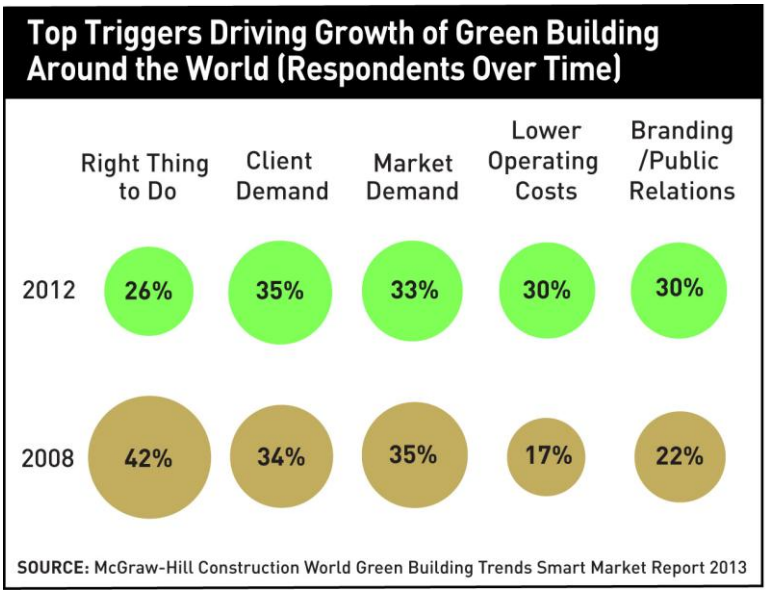


Figure 17 World Green Building Trends Smart Market Report 2013, (McGraw-Hill Construction, 2013)

The McGraw-Hill Construction Company, which was conducted a comprehensive research on green buildings with the professionals in the sector around the world, defined the top triggers to increased level of green buildings as market transformation, market demand, client demand, lower operating costs, higher building value, branding/ public relations, regulations, and right thing to do. These answers of the professionals show that now the market started to ask for the green certification. And those positive perceptions result in the growth of the green building marketplace around the world. The following charts show this growth. Figure 18, 19, and 20 sequentially indicate the ascending numbers of LEED, BREEAM, and DGNB certified buildings in each year.

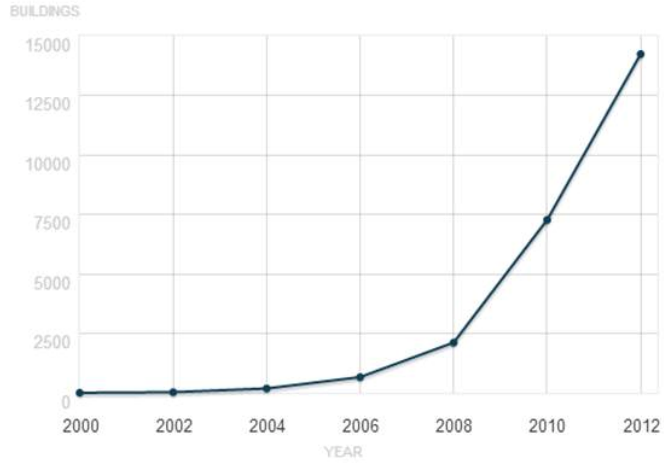


Figure 18 Number of LEED Buildings by Year , United States Green Building Council (USGBC)

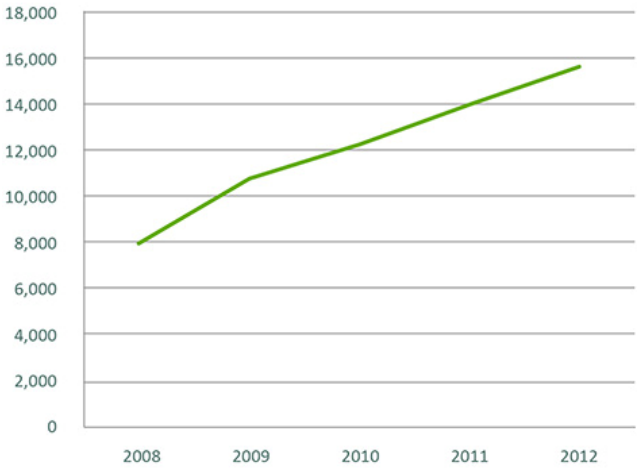


Figure 19 BREEAM project certifications, British Research Establishment Environmental Assesment Method (BREEAM)

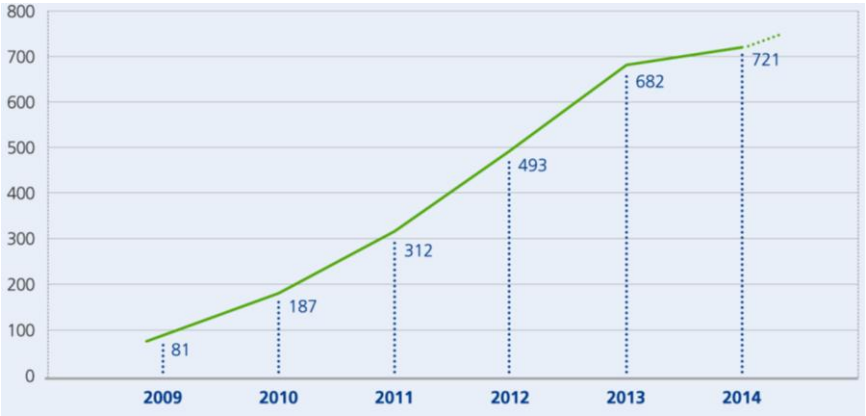


Figure 20 DGNB Certificates, Deutsche Gesellschaft Für Nachhaltiges Bauen (DGNB)

When the year 2012 is checked for LEED and BREEAM, it is seen that the number of certified buildings for each of the certification system is around 15.000. However, the number of DGNB certified buildings remains much fewer compared to its compeers.

Figure 21 is published in a report of royal institution of the chartered surveyors ‘‘RICS” in May 2012 and it shows the number of certified buildings around Europe according to their rating systems. The numbers above in bold refer to 2012 data and the numbers below refer to 2011 data. The rapid increase in numbers between 2011 and 2012 is remarkable. The concentration of green certified buildings in U.K., France, and Germany also draws the attention. And when the development sequence of the environmental certification schemes of countries is taken into consideration (BREEAM, U.K. in 1990; LEED, U.S.A. in 1998; HQE, France in 2002; and DGNB, Germany in 2008), the intensity of DGNB certified building production in Germany shows the country’s breakthrough in recent years in the sector. The establishment sequence also highlights one of the most important reasons why the number of DGNB certified buildings is much fewer than the number of LEED and BREEAM certified buildings. It should be added here that another reason to these numbers could be the increased conditions and requisites of DGNB certifications. Whatever the reasons are, it’s a little intriguing to see Germany behind its compeers in terms of numbers in the green building certifications today, because it’s always been a pioneering and trendsetting country in the green movements in the world. However, it appears that Germany also accepted these certification frameworks as the mainstream green building movement of the 21st Century, and expedites its attempts.

Figure 21 Certified Buildings in Europe (Retrofit and New Build), Royal Institution of Chartered Surveyors (RICS)

The ascending numbers in each year in the green buildings implies the growth of the sector. However to obtain a certain opinion or conviction about the dimensions of this growth and sincerity of countries' intentions, the sizes of green building and conventional building sectors should be skeptically compared. And beyond buildings, the green or clean energy strategies and investments of corporations and countries

should also be compared with their non-renewable energy strategies and investments.

According to the Veblenian industrial sabotage concept, the raising green building production numbers in each year indicates that the market is now in the beginning of the story. In other words, the relationship between the industry and the business is positive now. Both the share of capitalist earnings and the green building production continue to grow. In other words, the capital income share by absentee owners or institutional investors has not reached to its maximum yet. So, the green building business should still be trying to increase the green building production or green building industry. At this point, it can be argued that 'the grand narrative of ecology' and 'the risk society' are strategically used to make 'industrial sabotage' in order to bring the amount of green building production to its optimum for the 'above-average' income share of absentee owners. There is a necessity here to underline the deficiency of examining the sector only with the number of green buildings. In addition to the numbers, the quality and the creativity of green buildings should be a matter of concern, because they could also be restricted by the absentee owners for the sake of their income share.

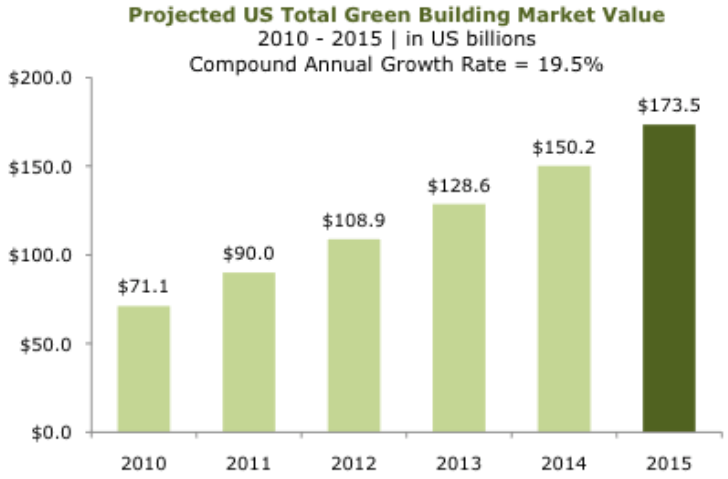


Figure 22 Projected US Total Green Building Market Value, The Plastics Institute of America

While the number of newly built green buildings in each year increases, the market value of the green building industry increases as well. Looking at a business from an investment perspective requires also to compare and contrast the pecuniary value of the products and not only their amounts. So for that purpose, it is continued with a chart showing the monetary values of the buildings in the market. The chart above, launched in June 2010, shows the projected total market value of green buildings in the U.S.. The expectation was a consistent increase since 2010 and a compound annual growth rate of 19.5%. In a report published by USGBC called 'LEED in Motion: People and Progress', it is stated that the market is expected to be worth $204 billion - $248 billion by 2016 and green building in the U.S. increased to 44% in 2012 and is expected to be 55% by 2016 (Holowka, 2013). Although these are the expectations but not the reality, it can be stated that market is ready and eager to do green building business.

Transparency Market Research has released a new report titled, "Green Building Materials Market - Global Industry Analysis, Size, Share, Growth, Trends and Forecast, 2013 - 2019". According to the report, green building materials market was valued US$106.32 billion in 2012 and is expected to reach US$234.77 billion by 2019 at a CAGR of 12.5% during the 2013-2019 forecast period (Ak, 2014). So, we observe the establishment of a new market and its rapid growth in the recent years.

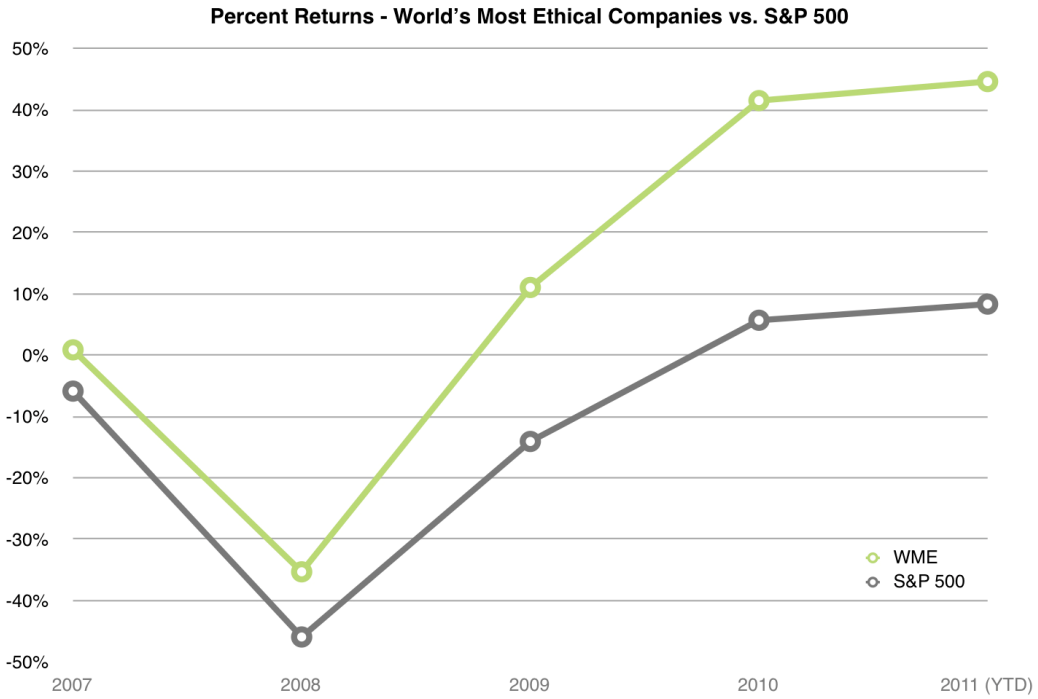


Figure 23 Ethispshere, World's Most Ethical companies, 2011

While there is an ongoing growth in the green building market, it's also necessary to mention about the 'responsible investment' issue. The returns of the 'most ethical' companies are better than the S & P 500 companies. These 500 companies are representative of the industries in the US economy. So, the information that they offer tells about the industrial average of the US. And as it is clearly seen in the chart above, the ethical companies beat the average, which is described as the main prerequisite for the differential accumulation for the sake of capitalists in regard to capital as power approach. And today, anybody or any institution is as responsible as they manage to express. So, all kind of 'responsibility' certifications regardless of its sector serve the purpose of standing out among its rivals and beating the average. In this regard, green certifications can be counted also as a catalyzer for the income increase of the companies run business in all the sectors also in the building sector.

4.3.1 Third-Party Governance, Institutionalization, and Monopolization

It's not a coincidence that the start of the "added value of design" calculations, the establishment of green building councils, the launch of green rating systems and right after the "added value of sustainability" studies happened in the same decade i.e. in 90's. After 2000's, academe has continued to work only on the impact of sustainability on the value of building. Again after the release of Brundtland Report in 1987, 90's and 2000's have witnessed numerous international environmental agreements. On one hand, the international agreements and the "added value" of design and sustainability studies have continued, and on the other hand, the collapse of the Berlin Wall, the establishment of the European Union, the defeat of communism and the victory of capitalism have declared. The signature architecture and the techno architecture have come out and created a tremendous impression. The prevailing economic system; capitalism; has celebrated its victory thorough the starchitecture, technocracy, capitalization of 'good design' and 'sustainability'. Until here, it looks like there isn't anything contradicting with each other. However, from 2000's onward, the academicians, who research on sustainability, have come up with diametrically opposite discourses to the monotonous certificated practices of the time. In 1999, Jarzombek declared that the term 'sustainability' indicates a 'grand-narrative' as strong as the 'grand-narrative' of the International Style (Jarzombek M. , 1999). Further in 2003, he even argues that the eco-determinists have forgot to consider the complexity of culture, life and technology (Jarzombek M. , 2003). Guy and Moore underlined the inability for standardization of one particular approach in sustainable architecture, celebrate pluralism and reject technological and scientific certainty (Guy & Moore, Sustainable Architecture and the Pluralist Imagination, 2007). In 2008, Pyla warns about the danger of the one fixed definition of the term 'sustainability' in the architectural debate. According to the author, in this way, sustainability becomes a 'totalizing doctrine', which is less about design decisions and more about political correctness (Pyla, 2008). As it is indicated also in the interface, again Prof. Guy has expressed that there can't be one fixed definition of sustainability (Guy, Whiter "Earthly" Architectures: Searching for Sustainability, 2012). But despite these discourses in academia, the construction market is tried to

be labeled – one way- with the sustainability certifications given to the whole world, because the finance sector is not capable of valuing complexity and diversity in sustainable design (Macmillan, Designing Better Buildings: Quality and Value in the Built Environment, 2004). Also, especially from 2000's onward, when there is global massive urbanization, the developers started to seek badly for financial and technical confidence to reduce the municipal approval time and to master in construction cost estimation (Zaera-Polo, 2014). So, in sustainable building business, they have looked for generic solutions. Beyond sustainable design and construction, the sector was in need of a generic way of city making in order to meet the demand of rapid urbanization. As it is shown in the interface, the urbanization pace of the world- especially in the emerging economies of Asia and Africa- is getting excessively increased.

As it is stated by Nitzan ve Bichler, there is the concentration of power and authority in large institutions. These large institutions can be public or private. Public institutions are states, and private institutions are corporations (Fix, 2015). But when it is talked about the environmental governance, the dominance of non-governmental organizations in decision-making and inspection process greets the eye. Many of the NGO's fostering sustainable development aim at raising the quality standards and setting up the certification schemes. They offer alternative forms of collaboration between state and non-state actors (Gemmil & Bamidele-Izu, 2002). The study of Sabine Sedlacek from MODUL University Vienna, examines the role of non-governmental organizations in environmental governance systems in the green building industry by focusing on the five core aspects - role, power, accountability, legitimacy, and acceptance – that define the position of NGO's in a governance system in relation to other stakeholders (Sedlacek, Non-Governmental Organizations as Governance Actors for Sustainable Development: The Case of Green Building Councils, 2014). Figure 7 is prepared by Sedlack based on another study, which introduces the concept of NGOs and contrast them with their private-sector (firm) and public-sector (government) counterparts in the global context (Teegen, Doh, & Vachani, 2004).

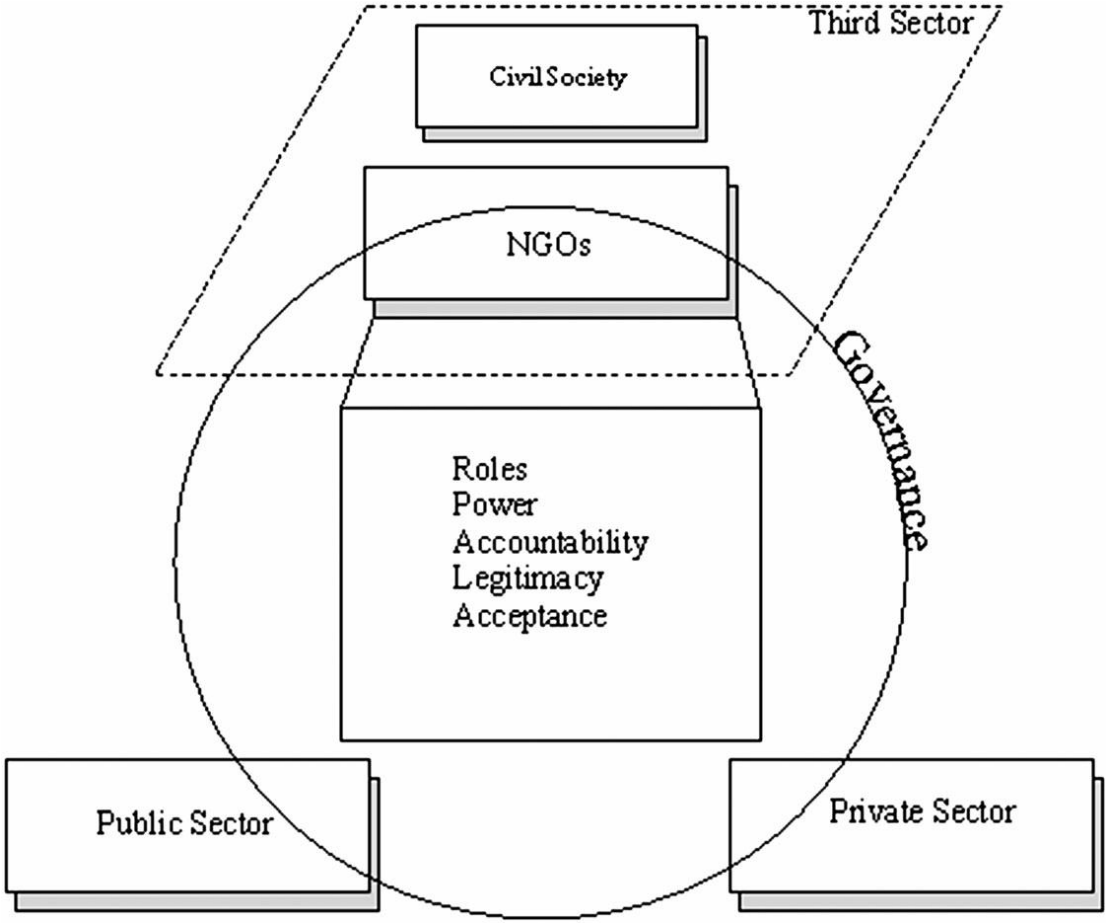


Figure 24 NGO's Position in governance prepared by Sedlacek based on the study of Tegen, Doh and Vachani (Sedlacek, Non-Governmental Organizations as Governance Actors for Sustainable Development: The Case of Green Building Councils, 2014)

As it is shown in figure 24, the third sector, which is the civil society and the NGO's, is positioned in between the public and private sector. In her study, Sedlacek also describes the NGO's as non-state market-driven governance actors, because they generate support from industry to finance their activities. To state another way, councils are financially supported by the membership fees and by the project application fees. In her Austrian case study, she divides the GBC members into eleven different types of stakeholders (governmental sector, property industry, construction industry, architects, real-estate brokers, engineers, planners, research institutions and universities, NGO's, private persons, and others), and concludes it with the confirmation of the argument that regional green building councils tend to concentrate their initial member acquisition on industry partners. Also, they are 'the construction industry players', 'the architects', and 'the property industry actors',

which were identified as the most important member categories by the participants of the survey (Sedlacek, Non-Governmental Organizations as Governance Actors for Sustainable Development: The Case of Green Building Councils, 2014). From this information, it can be noticed that the decision-makers of the regional green building councils are the private sector at least in the early phases of councils' development. So, one can conclude that the third sector or the third-party governance – the GBC's -, which plays a mediator role in between public and private sectors in green building industry, is actually constituted mostly by the private sector itself.

Another study, which perceives the GBC's as institutions of economic governance, looks for the role that these third-party institutions play in the market. The study remarks the reliance problem between the investor and the developer. It further argues that the GBC's at this point remove or minimize the chance of spoof of developers the investors by controlling the quality of and certifying the buildings. So, the councils take responsibility for solving the quality uncertainty problem in the market. The article also draws attention to the problem of potential demand. It states that the problem can't only stem from lack of knowledge or uncertainty, because all in all, even an investor gains a remarkable profit, the other investors see the niche in the market and welcome the opportunity (Sedlacek & Maier, 2012).

In any way, dealing of the sector with the risk factor is a crystal-clear fact. Because the buildings themselves are complex and compose of too many components, and also sustainability is a complex issue, it is difficult to be sure even the certified buildings' quality and profitability. Green building construction bring along many question marks. It is seen that market can't support the creative and alternative green building solutions because of the above mentioned reasons. Under these circumstances, a greener construction industry could be realized still under the control of third party institutions. This situation causes the sameness and the monopolization in green building production. But still, institutionalization and monopolization could be a compromising solution. Looking at those issues from the power theory of value approach brings the mind the probability of the control and sabotage of the whole production in favor of the profit growth of the dominant capital owners.

The Schumpeterian hypothesis states that large corporations are the engines of growth and technological progress. And when the founder members of the green building councils are considered, the substance of their role in these councils and their potential to set the tone of the production and even consumption can be understood better from the Schumpeterian perspective.

4.3.2 Green Building Incentives and LEEDigation

Rewarding and punishing are both a way of control of authorities over subservients. Nitzan and Bichler discuss in detail in their book 'CasP', the control of dominant capital owners - %1 of the World's population, over the whole society - %99 of the World's population. This control is executed through the rewards and penalties. In green building sector, there is also such a control mechanism. First, I start with rewards, which are personal income tax, corporate tax, sales tax, and property tax deductions, rebates, grants, loans and bonds. When o group of experts is charged with a construction project, and searched for the financial incentives that the project can get, the green incentives are now an important opportunity. It can be sometimes a government incentive or a company incentive suitable for the project. Of course, to get the targeted incentive, the building has to reach to a certain level of greenness. So, the expert group undertakes to achieve the green goal in addition to the implementation of a high-quality construction. However, the performance of a building relies on a little to the weather conditions and a little to the occupiers. Therefore, sometimes it's possible not to accomplish the green objectives. As such, the green incentives cannot be gotten. And you only have a construction project with more initial cost. In literature, LEEDigation; LEED related litigation; means going law in order to solve the commercial disputes when you are in such a situation. On one hand, application for green incentives has such risks, but on the other hand, ignorance has some penalty risks. Right now, the penalties are only financial as long as the building code requirements are met. But in the future, the penalties could be also legal. Ms. Aiello even states in her article that, in the future even the building occupants can go law against building owners or developers, because they did not built their building green (Aiello, 2010).

5 EXPERIENCES OF INDUSTRY PLAYERS

In the previous chapters, the words of the academe about power, industrial sabotage, sustainable architecture, particles of capitalization, monetary valuation, institutionalization, certification, monopolization and so on were all shared and discussed thanks to the publications that they made. However; the remarks, thoughts and intuitions of the industry players and clients couldn't be stated and expressed enough, because they usually do not have any habit or professional obligation for publication. So, they do not produce enough written material on the projects they execute. Because this thesis is investigating the production processes, end-products in sustainable building industry and the impacts of power relations, institutionalization/ certification and monetary value-driven measurement attempts on them, the direct contributions of the suppliers and demandants of the production should not be missed. With this concern, to provide additional context for my analysis, it is considered necessary to conduct in-depth interviews with some architects and appraisers, who design or appraise either labeled or not labeled projects but pay attention to the ecological and sociological footprints of their projects. The projected outcome of this qualitative research is to strengthen the arguments and cause and effect relationships in the theoretical model. Also, it is to know more about the probable restrictive and limiting influences of institutionalization/ certification and value-driven measurement and control mechanisms on production.

5.1.1 Participant Selection

As it is constantly expressed and also supported in this thesis, there is the plurality of productions, priorities, and perspectives in the world. Although it is tried to be restricted and limited through the creation of institutional and imaginative worlds, there are still pluralistic approaches of architects and clients to sustainable architecture, design and production. With these concerns, the interviewees are selected among the architects and experts having different worldview, understanding of sustainability and understanding of life, culture and technology and implementing both the very experimental and alternative productions and also the very structured and mainstream applications of sustainable architecture. So, it is aimed at providing a more comprehensive and qualitative feedback from the field so from the industry.

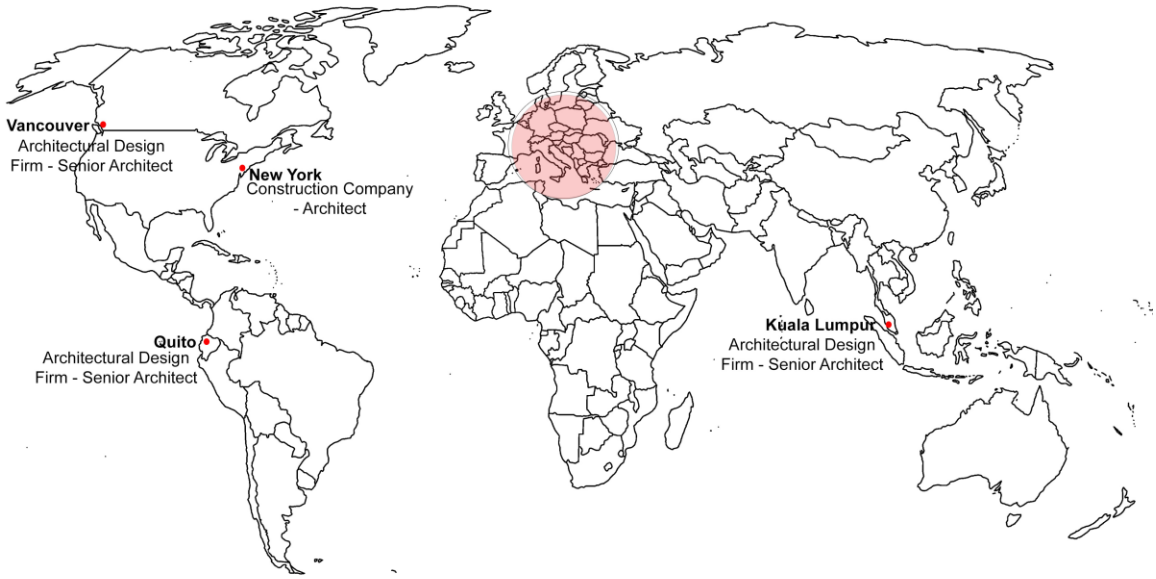


Figure 25 Interview Partners' Locations - Globe

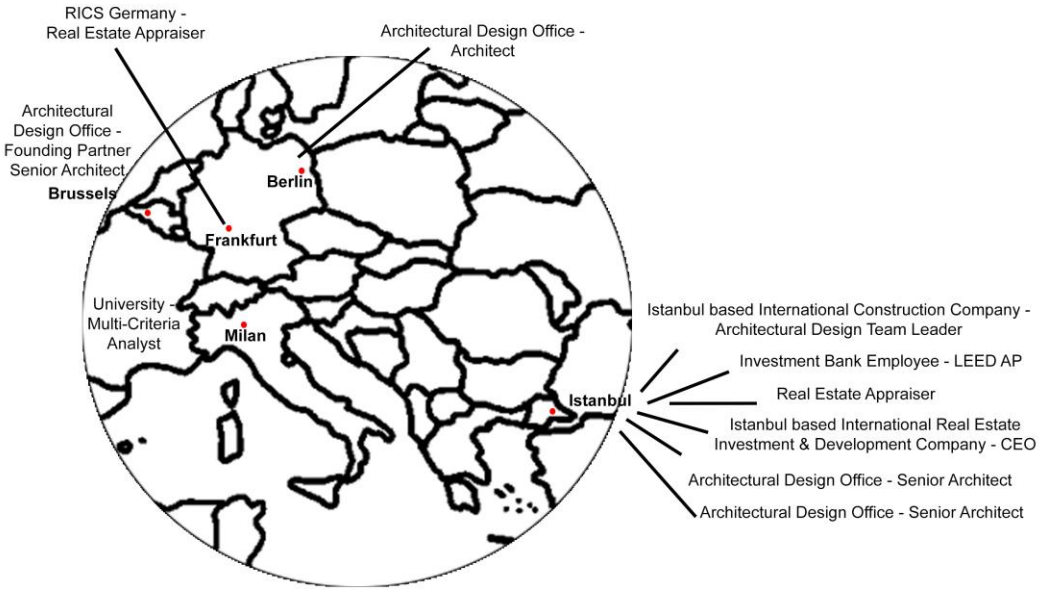


Figure 26 Interview Partners' Locations - Europe

Naturally, I've got more opportunities to get into contact with the architects and experts in the city that I live, which is Istanbul. So, I've talked with the senior architects of the two architectural firms existing for decades and remarkable for their sensitivity to environment and society. Further, I've spoken with a LEED AP planning and scheduling manager and a chief executive director of two different Istanbul based international construction companies. Also, I've spoken with a real estate appraiser and a LEED AP electrical engineer working in an investment bank. Then in Europe, through internet video conferencing, I've spoken with two architects sequentially from Brussels and Berlin. The Belgian architect, with whom I've spoken, was the founding partner of the 67-employee-architectural firm founded in 1980 and writer of many books about structural engineering and sustainable architecture. Again thorough video conferencing, I've got the

opportunity to talk with a real estate valuation expert from RICS Germany and a real estate appraiser and multi-criteria analyst from Milan Technical University. And then, I've conducted interviews also with 4 architects sequentially from Vancouver, New York, Quito and Kuala Lumpur. The Canadian architect, with whom I've talked, was branding himself as an energy efficient designer and builder and so much into the passivhaus design. The architect from New York was working in a curtain wall consulting firm, which construct the shells of the most famous starchitect designed buildings in US. The architect from Quito, whose projects was exhibited in the Vennice Architecture Biennale, was executing with his three other colleagues the most experimental and radical examples of society and climate responsive architectural projects without any financial concerns. And lastly, the architect from Kuala Lumpur was the founder of his own firm and got his architectural education in US and worked as a lecturer at MIT in the department of planning and architecture.

Actually, I've sent e-mails roughly to 150 architects and experts to conduct interview with. But the response rate was around 10%. The ones, who asked for the questions in a written format with the promise of a written reply, never replied back. So, I've always conducted semi-structed interviews with my interviewees. During the interviews, according to the responses that I got, I've always asked additional questions. If I self-criticize myself, my original questions, most of the time, limited my interviewees. So instinctively, I've picked up a word or a phrase that the architect or the expert used in the previous answer and asked the latter question accordingly. Because all of my interview partners allocated their time just to contribute to a doctoral research, they were all very responsive and in solidarity. Also, there were always some important remarks and stories that my interviewees want to share. After my third interview, in addition to my questions, I've also started to ask very basic questions to make my interview partners speak about the essence of what they really want to express and share.

Every practicioner had a different experience and therefore a different perspective. One interview to another, also my view has broadened and the borders in my mind have vanished. The interaction with my interview partners helped me to find layers to be peeled away.

Any exercise of power needs benefits for power possessors and inevitably causes disbenefits for the ones exposed to power. And as described in the “duality of the structure” theory, human agency both possess and expose to power synchronously in a complex network of relations. So, I’ve analysed the sharings of my interview partners under four layers to be peeled away in order to make contribution to the legibility of power in the certified green building sector. First, I’ve started with the benefits for power holders that the environmental certifications provide in the building sector. Then in the second part, I’ve summarized the methods and mechanisms that the power possessors use to derive financial interest from this sector. Third, I’ve tried to elaborate the power possessors and their network of relations. And last, I’ve detailed the disbenefits, which I called as “sabotage” with reference to the theory of Prof. Nitzan and Prof. Bichler.

5.2 WHY: The Benefits Gained

All kinds of power is possessed or exercised for a reason. In the certified sustainable real estate sector, the power possessed also has some beneficial grounds.

Figure 27 WHY Model

So, in the first part of the field research, the speeches and statements of interviewees are collected and interpreted to enlighten these benefits gained, which are the emergence of a luxury segment in the construction sector, the emergence of new business fields as the certified green building business and certified green construction material business, the emergence of a new market value increasing mechanism and a new marketing mechanism providing ease of selling and renting, and last but not least the emergence of a new environmentalist image projection mechanism.

5.2.1 Aspects from Istanbul

In this part, in which I narrate the interviews that I've conducted with the architects and experts in the property sector in Istanbul about the benefits gained from the existence of certifications, firstly, I start with the remarks of a senior architect

working in one of the most prestigious architectural firms of the city, summarizing how sustainability has already transformed into a luxurious and an upscale topic.

> “… When the employer says "we'll get certificate", we say "then, you install PV panel" or “then, there can also be wind tribune here”. Because if he says "I'll get it", this means "OK, I'll enlarge my budget a little more". Then, we suggest more luxurious, if I may say so, more point-oriented and price-increasing elements and products.”

Again the same architect reflects how a new sector has been created and new consumption mechanisms have been materialized with her words below.

> “… Because, there is good money in it. And this is the most negative feature of these certification systems. For instance, in the simplest term, if you hire a consultant, you get extra point. There is a modelling, which is too costly, but it is necessary to apply that modeling to get the certificate. This is a very big commercial factor. And that's why; new kinds of certificates are introduced continuously. They are updated every 3 to 5 years. The systems change a little. You need to receive training again. You pay that money again. It's something commercial.”

As another benefit, the ease of selling and leasing becomes prominent. It is seen that the sales rate is affected by the acquisition of a certificate in the commercial buildings bought or rented by big transnational companies. The investment bank employee clears up this situation as below.

> “… That the office buildings are green-certified is important for foreign investors. If they have taken decisions such as leasing and occupying LEED-certified buildings, etc., when they come to Turkey, they ask for LEED certificates in the office buildings. Since the inflow of global firms into Turkey is on decline in recent years, this issue may have become less important. However, there are those who say "I'll get LEED, and keep it as a plus in my project".”

"… Corporate buyers, for example, check everything. The LEED-certified buildings are preferred rather for offices. While making this selection, they check everything. Yes, they check the location; that's quite another story. Nevertheless, while reviewing different projects in the same location, they check such things. For example, in Maslak, Umraniye, Ataşehir, which are the main office regions of Istanbul, the certificates become an important driver to decide on the building to buy or lease. And, the maintenance fees of the office buildings are nothing like those of houses. That is to say, when you pay TL 3,000 rental for a house, you also pay maintenance fee of TL 250-300. When you pay TL 3,000 rental for an office, on the other hand, you pay maintenance fee of TL 1,000 approximately. It's much more different. Therefore, they attach importance on really low maintenance fees. And, the offices are rented out for much higher rentals. Very large spaces are rented. That is, when you rent 3,000 m^2 as office space, the amount changes greatly and automatically. In Turkey, the certificates affect your selling capability. You sell more rapidly. Does it affect the price much? Maybe yes, but how much? Not that much."

Also, the chief executive officer of the Istanbul based international construction and development company, that I've interviewed with, has a similar opinion and makes a statement as below.

"… In Maslak, the most prestigious residential district of Istanbul, the commercial high-rise, which we got designed by SOM, will receive LEED Platinum or Gold, and this is important for foreign buyers. That they have such a certificate can make it easier for them to rent out or sell it."

Further, he continues as following.

"… In other words, no one cares the environment in this age. The US has also withdrawn lots of its investments and financial support. However,

the biggest target of designers or contractors here is, unfortunately, the marketing, that is, easy selling or renting."

He underlines the advantages, which the certifications provide, in the selling and renting of prestigious commercial buildings. He later on discusses about the domestic investor's point of view.

"… While the certifications are important for foreign investors as they facilitate selling or leasing, they provide the domestic investors with no advantage at all. No one cares the importance the project attaches to the environment or its immediate surroundings. Your financial status as a company and the quality of previous projects are the most important criteria. "

The investment bank's LEED AP employee's words below clarify also the new and vigorous sector created.

"… Certifications are powerful. That's why, you take the relevant examination when you become a member. You pay to take that exam. You study for it. Just like the university admission exam, there is the pool of previous questions asked in the LEED exam. There are many things under this. They collect membership fee annually. In other words, there is a considerable amount of money there, too. So, they not only do something to buildings, but also create a separate community. A new sector is being created."

Green fields, forests, wetland areas are destroyed continually. And this provides a basis for the emergence of the climate responsive version of all kinds of production as a new sector. I continue to quote the statements of the LEED AP bank officer on this matter as it is.

"… Whatever you consume much, consciousness towards that increases. Gold and oil were not so valuable in the beginning. Later, together with the increase in different resources, together with the growth of the

world economies, their prices have increased, as the demand for them has also increased. Everything depends on the supply and demand equilibrium. If you decrease greenery, the demand for greenery will rise. The more you decrease it, the higher its value rises. The same goes for animals. Whenever a species of animal is on the verge of extinction, its value rises, and that species is put under protection. Normally, nobody asks why not all animals are protected!"

The planning and scheduling manager, that I've interviewed with, also states that another benefit of the certificates for the absentee decision makers or the absentee owners of power is the new green material market.

"… The certifications cause higher costs, because you cannot use any material. For example, there is a different range of materials you are required to use in order to obtain LEED certificate. There is a website called yesilmalzemeler.com.tr (it means green materials) in Turkey. That's a website that includes any construction materials from vitrified materials and armatures to coatings, from rough construction materials to roofing and facade systems. As for the Environmental Product Declarations (EPD), the EPD-certified materials increase the cost in Turkey."

In fact, one can see from the studies of the McGraw Hill Construction Company about the size of the green construction material market, which is shared also in this dissertation in the previous chapter, that this market has been created not only in the developing countries like Turkey but also in the global context. The planning and scheduling manager of the international construction company, with whom I've talked, also confirms this.

5.2.2 Aspects from Europe – Berlin and Brussels

The owner of a 67-employee-architectural office founded in 1980 in Brussels, expresses how the developers and investors cherish and avail themselves of the certificates as below.

> "… It is amazing to see how BREEAM is cherished by developers. BREAAM is now used by greedy developers to sell crappy buildings. And unfortunately, this is the reality. The MIPIM in Cannes (established in 1990, MIPIM gathers the most influential international property players from the office, residential, retail, healthcare, sport, logistics and industrial sectors for 4 days of networking, learning and transaction), for example. The big show of commercial architecture, in which they all exhibit the BREAAM Excellent / Outstanding for the most mundane, quite desperate buildings. Yet, they get the best LEED, BBREEAM or whatever the certification."

Again the other architect from Berlin, who renovate the old buildings for residential use, points out that their clients choose the most expensive and environment friendly products for the apartments, which will already witness a high level of value increase in the coming years. I'll mention about the determination of material prices as an obedience extraction and sabotage mechanism based on the statement of an architect from Istanbul in the related part. Here, only to declare the classification of the fossil based products as the cheapest and least valued construction materials in pecuniary terms, the classification of the natural products in an upper category and the classification of the renewable and sustainable products as the most expensive and most valued construction material category and the inverse proportionality between the prices and the amount of uses so the luxurious image of the environmentally engaged production will be enough. The same pricing categorization aslo exists in Germany and this is justified by the value of the human capital and technology as the modern firms did to justify their stockmarket value. The architect, that I interviewed with, states that these materials that are kept high-priced with these motives play a remarkable role also in marking those houses' sales prices up and convince the buyers to buy these houses more quickly.

> "… Fireplace and bathtub are luxury while leasing and/or buying a house. Elevator, terrace, balcony, garden are the elements increasing

the value of a house. The same goes for roof and the materials used in the house. The flooring, for example; whether its is laminated, or something based on rubber, or natural wood changes the value. All are the parameters changing the value of a house. Likewise, using wood in the bathroom is also luxury. Depending on their quality, armatures, faucets are things helping to convince the customer, increase the price."

"… We made 2 important projects last year. Both of our customers have selected the recyclable ones among the materials we had shown to them. Both projects were housing projects, and our customers were renewing their own houses. One of them was an industrial building from the 1890s, which is an ex-chocolate factory. Both projects were 5-storey, steel structured, courtyard-type buildings located in Berlin downtown. They were being used as house. They were partitioned so as to be a few apartments per storey. Our customer bought a 600 m^2 house, which was one of these projects, for almost € 2 million. Another € 2 million was spent for the interior so that it could converted into a house. All materials selected were natural or recyclable ones. For example, although there were wooden floor covering products for unit prices between 60 and 70 Euros among the samples we showed for selection of the flooring woods, our customer selected the floor covering that cost € 180 together with the labour cost. Likewise, he also preferred the top quality ones for the vitrified products and armatures, because he knows that such high-quality materials will increase the value of the house while selling it."

Presuming the natural and renewable materials as luxurious products and using this assumption as a sales price increasing mechanism becomes apparent also with these words of the architect. Again the same architect explains the reasons behind the construction of a new house in Italy certificated with LEED Gold.

"… We have designed and built a villa for the owners of a very famous shoe company, and that villa has received LEED Gold certificate. The

reason why our customer wanted to receive this certificate was not environmentalism. They just wanted to advertise themselves. They wanted to create the image of an environmentalist family. It was a house that cost € 2.5 million, capable of generating its own power and it was mentioned in a few magazines."

The words of the architect straighten out how the certificates taken only with such image benefit motivations publicise a corporation. Herein, it's also necessary to say that the credibility and reliability of the certifications are destroyed by this kind of malpractice.

5.2.3 Aspects from the Aclinic Line – Kuala Lumpur

When I asked about the economic benefits of certificates, I got the answer below from the Malaysian architect.

"… There are lots of economic benefits. Of course, the governments all around the world are doing business. They don't care about people. They only interest in making money on dirty business that really run the country. So of course there are lots of economic benefits that really don't mean a thing. They only have a feedback for the richest people, who already participated in the same lies. The actual meaning has no value at all. And of course, these benefits change with the acquisition of a certificate. You know, they are all the part of the same lie. The lie helps another lie."

Because I never made research about the main financial resources of the countries, I cannot agree on all of the claims of the architect. However, the worldwide network of green building councils and their relation with the private sector, which are funding them, and the main concerns of this huge network are all described in the thesis. And the thoughts of the architect strengthen those arguments.

5.3 HOW: The Mechanisms to Extract Obedience

All kinds of power has possessed or exercised thorough some certain methods. In the certified sustainable real estate sector, the power possessed also uses some certain mechanisms and methods to extract obedience and to control.

Figure 28 HOW Model

So, in the second part of the field research, the speeches and statements of interviewees are collected and interpreted to enlighten these control mechanisms, which are the intangible motivation providing, advertising, the value increasing image giving, intimidating and confusing with uncertainty and complexity, mobilization of bias, economic rewarding, knowledge production and distribution, price and standard defining and confidence giving.

5.3.1 Aspects from Istanbul

I start with the words of a senior architect working for 11 years in one of the most prestigious architectural firms existing for two generations in Istanbul, declaring the acquisition of a certificate as a motivation mechanism and an intangible benefit.

> "… And it's also something motivating for an architect to say "I've got LEED Gold; this is my certified building"."

Again another architect, whom I've talked with, mentions about the advertising revenue and image benefits of certificate acquisition.

> "… The high-rises having LEED certificate or other certificates are always more transformable for the employer in all respects. That is to say, it is beneficial in terms of both advertising and showing an environment-conscious stance. If they want to show such a stance, I mean."
>
> "… That is to say, this has become a marketing tool outright in our country, because when it is talked about LEED, the end consumer thinks like this: Oh, this must have been controlled in the US, too. A more conscious consumer, on the other hand, thinks like this: If this building is certified, this means that I'll spend less; my electricity and water bills will be lower. So, yes, if a project is certified, and when the end user is conscious, the prices of the project increase, and the investors can get their money's worth, in financial sense. However, if the investors are having something built for themselves, it may take much longer for them to get their money's worth. That is to say, for something they have had built for themselves, the return on investment in the long run may take 10 to 15 years, but if they have had a house built, they get their money's worth directly as the price of the house rises automatically."

It's strange to see the presence of this way of thinking. In fact, I've noticed that the real estate appraisers in Istanbul don't even consider the certificates, when they calculate the value of buildings with income capitalization method. They also don't have enough information and project to use the other methods of value calculation,

which are the cost method and the comparison/market method. But still, the perception of certificates as a value increasing tool is used as a strategy by architects to affect the decision of their employers, although the architects don't even have any quantitative data for Istanbul.

> "… We are not interfered with by anybody. We sometimes try to convince the employer. There are times we say, "Do this so as to be known", or "Do this so that its return can be very quick", or "Make a splash". We use this as a marketing tactic."

Again, the architect uses the certificates to affect the decision of the client. In the ever-changing power relation between the architect and the client, this time, the architect interferes in the decision of the client. And maybe, in this way, the architects contribute to a more carbon neutral and climate responsive transformation. However, the essential requisite for a successful change, here, is the clear understanding of architects on the certificates. As it is repeatedly expressed by many interviewees, the certificates are very basic tools for the standardization. And as I hypothesize in this dissertation, they may also become a very effective tool to sabotage a real change towards a carbon neutral or carbon independent future and avoid the resistance towards the exploitation of nature and injustice in the income distirbution, unless their content is clearly understood. As long as the certificates are not marketed as a luxury good or as an idealized strategy for change, they may help to motivate the clients, who don't have any sensitivity for the environment and society.

5.3.2 Aspects from Europe – Frankfurt and Milan

The valuation expert that I interviewed from RICS Germany states that the value of a building changes with respect to the method used. There is the domination of three methods used in the sector. In Istanbul, Berlin or in another city in the world, those three methods are used in the practice. And all of these methods give different results for the value of the same building, because they measure not the quality or

performance but the particles of capitalization or the risk oriented expected future income. The expert from RICS declares that different methods need to give the same outcomes. And this statement leads me to the same question again. Are we sincere about measuring? May this type of measuring methodoly encourage the producers to try and look for better solutions? Or, through the determination of the measuring methodology and the coefficients used in those methods, is the work or production controlled?

> "… I would argue that the methods should not influence the outcome of the value. The mothods used are only a tool. The value of the buildings should be determined by the quality of the building, not by the methods used."

The same expert continues his words as follows.

> "… The value of works are pretty much unknown, because, honestly, in the practice of regular valuation, there isn't so much time and money to spend to include many experts to really look at the building. So, the value is mostly determined how the building is categorized in these qualities of usability."

While the expert was drawing the attention, first, to the complexity in the valuation, further, underlines the uncertainty issue. After his criticisms on the measurement methods, he continues his words with how the value is created or produced.

> "… Value is something, which is created in the mind of the potential buyer. So, value is what the potential buyer would pay. So, if in the head of the potential buyer of a property, some qualities of that property have worth, only then he could pay. For example, 30 years ago, nobody knew that mould is bad and unhealthy. So, it would not affect the value. And the other way around, if you are not aware of any qualitative critera or qualities of buildings, they will not be able to affect your thoughts. So, there will be no affect on the value. More knowledge and understanding the buyer has on the qualitative characteristics, more these

characteristics will affect the price that people are willing to pay for it. The awareness of the potential buyers in the market affects what they pay."

"…When they (the potential buyers) know what is it, and they understand it and they proceed it something good then they will pay for it. So, it's a matter of sparing the news and putting the information into the head of the market that this is something good to have."

Here knowledge production and distribution rise to the surface as an obedience extraction mechanism.

The complexity and uncertainty in the value creation is also something, which is expressed by the multi-criteria analyst from Milan. The analyst underlines the complexity of the reality and the necessity for simplification. She also explains the difficulty of measuring the social and environmental innovations with respect to the technological innovations.

"… Quality is a very heterogenous concept. Because quality is of course by the sensitivity so the capability of local communities of reading the context and giving it a value, that is not always economical value but also environmental, social, aesthetical, architectonical value."

"…Nowadays, it's hard to tell, because we have solutions that have never been tested before, but that can be evaluated in any case, because we have more sensitive and complex evaluation systems. So, it always depends on which kind of innovation. Usually, technological innovation is easier to be evaluated. Though it has never been tested. Social innovation and environmental innovation instead are usually much harder to be evaluated. Because they need existing data usually for comparison and the fact that usually social and environmental models have a much lower prediction capability than physical, chemical, technological, and engineering systems. It makes it harder. So, it depends on which type of innovation you are talking about. If the

> innovation is the use of a new tool in the electrical system for preventing the fire events, it can be predicted in advance in an aprioristic method what will happen. If you are talking about the impact of certain solution on the air quality in a specific urban context, you need data to compare your predicted solution to what actually happens."

Here, on one hand, there is the community or the potential buyers capable of reading the context and giving it a value intuitively and consistently, so producing the market value. And on the other hand, there are the scientists trying to predict and meausre the qualities of the complex reality of some single cases via complex evaluation techniques and come up with not the market value but the use value. Both of these complex processes affect each other. The scientists or experts at universities or research institutions, only at the request and under the sponsorship of the individual responsible clients or the institutional power, are doing them for specific projects. And the use of different evaluation models come up with different results and the complexity causes the danger of losing the key parameters affecting the value. Here again, the value means not the market value but the use value. And as it is previously unveiled in this thesis, the three methods used to calculate the financial value of the properties have nothing to do with the use value. Additionally, the market itself is so heterogenous that the differential evaluation results of the differential contexts do not offer adequate simplicity to trace the value adding parameters of quality or good design, and so intimidating with complexity and become a mechanism for the mobilization of bias.

The expert, herself, is criticizing this complexity as follows.

> "… It's hard because an evaluation should always have a name, in such a wide set of parameters might make you lose the aim of the evaluation. So, it's better to use more different tools having a specific aim and than put all of these results on comparison what is the final balance in terms

of total performance. Because there is the risk that too wide evaluation system having tons of parameters, end in the end you miss the important answers. It's a difficult world."

5.3.3 Aspects from North America – New York and Vancouver

The words of the architect working in an award-winning curtain wall consulting firm, which has designed and consulted on some of the most prestigious cultural projects in New York City, including the renovation of the United Nations Headquarters, the new Whitney Museum of American Art, Lincoln Center, and the Museum of Modern Art, defines how the material prices and labor wage affect the production process.

"… There are these LEED programs, which are kind of defining the factors that you have to fulfill to get certified. So, you have to have local materials and you should have local production. But for special curtain wall, this doesn't work at all. Because you have China, which is so cheap now, that everyone is doing production there, and shipping it to here."

He also talks about the prices of electricity and gas, and how their prices affect the construction habits of the richest country in the world with the use of the cheapest construction materials.

"…Also the passivhaus thing, which is very big in Europe, is something very new here. I was talking to some engineers. They're really excited about it. They try to convert some old houses, into passive houses. But it's hard. They don't have the experience. Engineers are pushing for it. Because, electricity and gas were so cheap before, people didn't care about insulating the house properly. But nowadays, things are changing. People don't see it yet. The technical people see it. The engineers know

> that they have to respond it. All the houses are made of wood, the cheap plywood. The cheapest material on earth! So, in order to heat and cool your house, you have to use a lot of AC. You have to use it, because it's so humid in summers here. "

The words of the architect from the curtain wall consulting firm clarify how the pricing frames the production. And, he futher mentions about the standardization.

> "… The foreign investors have to control the quality and protect themselves from any potential law cases. That's why we have standards to protect us."

Then, the sabotage of the amount of the climate responsive construction projects or labeling, which are not obligated and standardized, becomes inevitable. If defining the standards is a control mechanism here, then of course, the standard definers are the absentee holders of power, who are cabaple of affecting the whole production pattern. Also the definers of the laber wages, the material prices and the unit prices of utilities such as electricity and gas are the absentee owners of power. The architect also talks about the power of laws. The lack of laws comes forward as another driver for the limitation of climate and society responsive construction market.

> "… Its all client related. If they are into sustainability, they will conscious about it and they will take care about it. If they don't care about it, then no one would care about it. In order to follow it, you have to have strict laws. At the moment, everything is done by the certificates, which is not obligatory to have. So, if it's not official, why should I have?"

The same architect also mentions about another important challenge, which is the self-production of the construction materials and the self-construction of one's own

house. And he explaines how the building codes are effective and restrictive with his words below. He also summarizes the paradoxical system, in which the cheapest construction materials compatible to building codes come from China.

> "… We are living in the cities now. The cities are so artificial. We have the building codes. To get the permission, to be legal, you have to use their products. You have to buy them. You cannot produce on your own. The indigenous tribes in Amazon, they are the most sustainable ones. They just don't allow you here to produce your own material and build. The local workforce is expensive. Local materials are expensive. So, you import the labeled products from China."

In addition to defining the prices and standarts, knowledge production is another control mechanism. And the words of the architect below describe how the lack of manufactured perception about the potentials of sustainability affects the quality of investments in the New York real estate market.

> "… The problem with the New York market is that the clients are not well educated. New York is the most progressive place on earth. But, it's also really traditional. It's not controversial. All the new ideas and all the modern thinking look like come from New York. But, it kind of doesn't work. The people, who have money, are more traditional. And they learn just to invest without thinking about the consequesnces, or the future. If it's a good investment, they will go forward. If they learn that sustainability is a big thing, maybe they start to think about it. But, they are usually not sustainable. They just invest money, put their money to build it, and then sell it. They don't care."

The architect from Vancouver, branding himself as a passive house designer and builder, explains also the building boom in Vancouver as in New York nowadays. He

also explains how the cheapness of energy affects the citizens' perspective about sustainable building solutions and sabotage their demand and sensibility. As it is declared by the architects from Istanbul, New York or Berlin; the architect from Vancouver also declares the presence of citizens and clients having a responsible stance on sustainable living and building in his own country. However, except for these exceptions, he underlines the mechanism to avoid any significant market demand for climate responsive projects by keeping the unit prices of energy low.

> "… In Vancouver right now, there has been a very strong market demand for any kind of building. And so, there is less marketing differential for green building. That's part of why, I think, we haven't seen a strong demand for certification in Vancouver by the market point of view. It's all been driven by the city requirements. Part of that is our electricity and gas are really cheap here. So, people really don't care. And in the macro level, the other are maybe the 10% of the market that does, just because they really are into the green stuff. Actually, it's partly more than that. I mean, in Vancouver, people identify as a pretty high rate as being green in terms of their lifestyle, but there is not a strong economic driver for efficiency. Because energy is so cheap."

Again the same architect from Vancouver explains how they brand themselves as energy efficient designers and builders and use the energy efficient design strategy as a marketing tool.

> "… For us, it's a branding and differentiation. So, if somebody tries to find a residential designer or builder, there is a lot of competition in Vancouver, a lot of competitors in the market. But if someone wants to google passive house Vancouver, they are much likely to find us. So,

there is a clear market differentiation there. And I think we become known for that."

5.3.4 Aspects from Aclinic Line – Quito and Kuala Lumpur

The architect from Quito, Ecuador explains how the governmental energy policies eliminate and destroy any potential request for renewable energy, how the conflict is avoided through the deficient distribution of knowledge and the priorities are shaped and how the vernacular building is sabotaged by keeping the production expensive and invisible.

> "… Here, specifically in Quito, although it is something less common in Latin America, the government pays some cost of the electricity. They grant/ aid the electricity, the water and some fuels. So, the new technologies, like solar panels for generating electricity or something like that, is not very common. And it's usually more expensive than the energy that the government provides. This is for sustainable energy. But for the construction technologies, the materials with low carbon footprint are not a concern for the people who build in big scales here. We haven't suffered so much directly from the problems of global warming and contamination issues, or we didn't assimilate it close to us. So, it doesn't matter for the big companies building in the city."

While the daily needs; electricity, water and fuels; are given to the citizens scratching a living low-priced as a government policy and renewable energy production costs much more, the outcome of this equation becomes a society consuming non-renewables. Again, a society, having no clue how they are affected by the climate change and contamination because of the lack of knowledge distribution, do not resist to the enourmous construction projects in their country. Setting the prices and lack of knowledge distribution, herein, come into play as an obedience extraction mechanism.

"… when you work with wood or bamboo, a long beam of bamboo, like 6 meters of bamboo, it costs you 2 dollars. But, the way one bamboo is connected to other bamboo, is a joint that can cost you 200 dollars. So, obviously, this technology wasn't available in ancient times. So, people developed a way for joining these bamboos with leather. But, with the leather, you have to manage the leather in a certain way, in order to keep this structural value. You know some procedures of the industrialized leather. They are dehydrated. They took the water out of the leather. But you have to manage in a certain way in order to keep their structural properties. And when we found these techniques, we didn't find any books or any investigations or any theory about it. So, the main way we learn was the community and the people that have used these structural joint for a lot of time. They said us how to do it."

Herein, the expensiveness of a joint, which is the new interpretation of an old practice having almost no ecological footprint, and the inaccessibility to any written document about these vernavular building techniques show up as sabotage mechanisms for sustainable building.

"… When you saw something that is not common, that is not the usual thing that everyone does, you will be forced to do a lot of things that are not conventional and new. When you are in this situation, when you do things that are not conventional and new, you tend to do a lot of mistakes. Because you don't know, what you are facing. You don't have experience and you haven't learned from anyone before all these things. So, you tend to do a lot of mistakes. And, so when you do a mistake, you get demoralized. So, you have to be very strong to learn from those mistakes and start from zero again. You have to think for 20 ideas and 19 of them will die. We tried to do 20 projects, but we only achieved 1 successful. So, you have to be comfortable with to be a loser for 19 times.

> Another risk is that you have to adapt the way of life to these environments you are involved in. We never achieved this American type of a lifestyle with a house, a car and all those things. We live a simple life. But, we think it's ethical what we do. Still, when you are in a lot of these glamorous events, a lot of people that surround you having this American successfully life, and you have this simple life, you don't have to be weak in front of them. You have to arrange your ideas to know that what you have chosen is what you have. That's another thing."

In a world full of rewarding mechanisms; walking towards the unknown, making a lot of mistakes, and getting no financial return are not so easy. Therefore, many architects abstain from different, radical and pioneering projects. The architect from Kuala Lumpur, whom I interviewed with, claims that using the word 'sustainable' for architecture is a mistake.

> "… I don't try to design for sustainable reasons. I just try to design with common sense. And I think the problem is, when you start giving names to something, they start to seem as a virtue, though it isn't. If you design well, it will be sustainable. It's about good design and common sense. And I think the use of this word 'sustainable' is a joke in a way. It's a very bad word to use for architecture. It makes us believe that you can still design good buildings, which are not sustainable."

Because the designs and construction projects having no sustainability label or certificate are deprived of being entitled as sustainable and receiving incentives, the ability to give a certificate is already a control mechanism on production. Another control strategy is to make people condition to luxury rather than basic needs and necessities. As if to prove economist Bataille's claims right about the prerequisites of capitalist economic system, which are luxury and war, even the sustainable design

and building can be converted into a means of luxury consumption. And the words of the architect below enlighten the potential that we couldn't use for this reason.

> "… In the entire planet, we have gotten everything that we wanted for the last 50 years. But we didn't ask the single question of what we really need. I believe if we focus more on necessities rather than luxuries, we can pioneer an experiment with all kinds of things, that will really change the way we understand what design means."

5.4 WHO: The Network of Power Relations

The actors, each of which has power to affect another actor's decision, construct a network of power relations. So, there are the (in)visible political roots of actors' decisions. In the certified sustainable real estate sector, the power possessed also has a network of relations.

Figure 29 WHO Model

So, in the third part of the field research, the speeches and statements of interviewees are collected and interpreted to enlighten this network. The international investment banks and finance corporations funding the building construction projects, knowledge or information creators and distributors, those who determine the unit prices of the product, utilities and labor force and set the standards about sustainability, label givers, award givers, the clients and the architects do all constitute this network.

5.4.1 Aspects from Istanbul

> "… As an investment bank, we receive credits from the IMF, the World Bank, the European Bank for Reconstruction and Development (EBRD), Asia, or the French Investment Bank in order to give them to companies to be used as investment credit, and issue bonds. We receive credit from them, add a certain amount of cost, and distribute that as credit again in Turkey. They have special conditions. For example, we once had the green credit facility in our bank. If you were renovating a touristic investment in your hotel so as to be LEED or BREEAM certified, the bank was able to give you credit with a much more affordable interest, because it had found such a fund. A credit we had taken out from EBRD was related completely to renavation of the green buildings. When you say "I'm renovating a building of mine so as to transform it into a green building", our bank would give you credit with 2.5% interest while it was 4% normally. And it would also encourage you to do so."

This is an economic reward. It leads a client or an architect to get the certificate and guarantee the financial revenue despite trying something different and being vulnerable to any mistake. But, in addition to this mechanism, here, it is also seen the awarder. In the network of power relations, at the top of the hierarchical network, as an absentee "owner" of power or "power possessor", the international investment banks and finance corporations, which are funding the production, are

seen. At this point, it's necessary also to ask why the same interest rate incentive doesn't exist anymore. This deficiency destroys the credibility of this rewarding mechanism and becomes the proof of strategic limitation.

> "… Let's say we want to use 100% natural materials. We want to use natural wood on the facades. However, in the works in which it is wanted to keep the budget low, for example, housing projects; or in smaller office projects; or in the projects in which the employer has a different point of view, there can always be efforts to replace the natural wood with wood-looking plastic-based or petroleum-based materials. As architect, we initially want to use the genuine material instead of its imitation. Nevertheless, that material can evolve into something else during the project. One reason of this may be maintenance. In the end, the employer wants to make less maintenance, that is, to pay less to maintenance. … At the heart of this, we do not have a thesis or concern of using a sustainable material. We do not start off by planning alone to use more environment-friendly, recyclable materials. There are the relevant costs. There are the employer's requests. … However, if the employer starts off with the intention of obtaining certificate in the first place, then, we, as architects, make selections fitting to that intention."

The categorization about the prices of building materials made by the architect, working for more than 11 years in an Istanbul-based office existing for 24 years and developing the country's best projects, leads me to think of the network of power relations in the sector, where the most modern firms are not the price takers but the price makers. According to this categorization, sustainable or renewable materials are the most costly ones, natural materials are the second costly and fossil-based materials are the least costly ones. As it is well known, there is always fluctuation in petroleum prices and the unit prices vary from country to country. So, if one considers also that the prices of fossil-based construction materials are set up

at will, s/he can see how strongly the price maker firms or corporations have a voice in the determination of the consumption amounts. Although this is a completely invisible power relation, it's very strong. Because, the prices are a very important criteria affecting the choices of architects and clients.

> "… Architect is obviously very important so that a project can be a good one. We have received a good education. The companies that have been operating for so long in the sector have definitely the same consciousness. As for me, on the other hand, the first requirement of a good project is the employer. The employer must attach great importance to this issue, and his initial objective must not be money. If the initial objective is money; if the employer thinks about neither the end consumer nor the nature, the points we can reach are very limited. We are trying to do anything to make a building green without increasing the costs very much. We emphasize on this in our projects. We already make the building as green as possible with the site and orientation of the building, and the materials selected. However, our job is employer-oriented. Architecture is a branch of art, but it cannot be performed without money. In the simplest term, we have been constructing a dormitory for Bogazici University, one of the best universities in Turkey. And we cannot convince them to accept the green roof. It is not costly, and we have still been insisting on it. Therefore, employer is the most important factor."

It is underlined that the point to be reached becomes very limited regardless of the knowledge and awareness of the architect, when the employer or the client do not display or have any sensitivity towards a sustainable production. There is, in fact, a visible power relation. The decisions of an architect are subjected to the control and approval of the client or employer. Or, the architect works under the supervision of the client.

> "… We listen to our employer very carefully and try to understand him, because in the final analysis, the requests and needs of the end-user or the employer matter. They rank very high in the list of design criteria, but this does not mean that the employer steers everything. Sometimes, if we see a benefit for the people around, we absolutely suggest the employer such things."

> "… Sometimes, the employer agrees with you. He supports you. Sometimes, we try to do things through heated debates. We insist by saying like 'this must be done this way'."

These words of the architect highlight also the visible power relation between the architect and the client. However, in addition to this obvious hierarchy in decision making process, the ability of the architect to change her/his position in this hierarchy under specific circumstances greets the eye.

5.4.2 Aspects from Europe – Frankfurt

> "… It's a matter of sparing the news and putting the information into the head of the market that this is something good to have."

I've shared the words of the expert from RICS Germany previously, which explain the value production as a matter of distiributing the knowledge and putting it into the potential buyers' head. At this very critical point, I'd like to refer to the institutional power, which is also included in the theoretical model of this dissertation, who fund and control the knowledge produced. There is a very complex and heterogenous market. There are also economic and political uncertainties. If putting the information into the head of the market is really the main factor, which determines the market value, then we can talk about the power possession of the people, who at least try to control which information is spreaded out and accepted.

5.4.3 Aspects from North America – New York and Vancouver

The architect from New York verbalizes how all the initiative is given to the investors with his statements below. The construction projects are already tested by a bunch of inspection processes and financial difficulties. Under these circumstances, all the environmental responsivity of the design and construction of projects depend on the viewpoint of the owner.

> "… Unless it's the consciousness of the owner, the developers only care about the certifications."

> "… Especially now, there is booming in construction. There is a new building in every corner since the last few years. Developers, they have goals. Gold/ Platinium certificates. But to get there, you have to pay local forces, local production, which is more expensive. They say, ok, I go for Platin. But then they say we cannot reach platin. Let's go for gold. It's like less stringent. For Gold, what are the requirements? Oh, this is still expensive. Let's go to the lower. In the end it's just certified and that's it."

Developers should not be considered as the only builders of this arbitrariness and aimlessness. Those who have the authority for determination of product prices, workforce, electric and gas prices which are examined under the title of obedience extraction mechanisms; and those who are authorized for not turning sustainability into a legal obligation and thereby not transforming sustainable design into a profitable and potential aspect have left the developers in an aimless position. Those who determine the unit prices of the product, utilities and labor force as I have mentioned above, and the common opinion related to sustainability, cause this subjugation in production as a whole.

A similar situation exists in Vancouver. Keeping the unit price of energy very low while the land and construction costs are very expensive removes the essentialness of going green. In this case, the invisible power of those who determine the price is too big to deny.

5.4.4 Aspects from the Aclinic Line – Kuala Lumpur

> "… When you start giving names to something, they start to seem as a virtue, though it isn't. If you design well, it will be sustainable. It's about good design and common sense."

> "… It makes us believe that you can still design good buildings, which are not sustainable."

Those who propose this name "sustainable", define it, set the criteria for the entitlement to receive it, and prepare a compelling environment for architects to design according to those criteria are the absentee owners of power.

As the example told by the architect I interviewed and shared below, the architecture office that received the award due to its name but not the quality of its work, and those who gave it the award in the branch of vernacular architecture are at the top of the power network. This power is revealed by awarding the office with strong branding, instead of awarding the office with high-quality design.

> "… There are many projects now, especially from Singapore. There is also a very big and popular firm there, which is one of the most published architectural firms in the world right now. And they are awarded for a ventilation system design in one of their projects. None of the juries actually have studied the work. And the truth, the only parts of those buildings which are cross-ventilated, which exhibits cross-ventilation, are the public areas, which is not different than from very cheap housing development board apartments in Singapore. And 5% of

> units are the penthouses. And even in these units, you have to open the master bedroom window, master bedroom door, master bedroom toilet door, and the master bathroom toilet windows in order for cross-ventilation to happen. Because cross-ventilation can only be affected on opposite walls. So, a lot of words used to describe the works are not true. And the world is now uses the word 'natural ventilation' as if it is a virtue. You can not even feed a dog in a space without cross-ventilation."

This power sabotages us to understand what is a good project. And it makes us define an unsuccessful project as if it's successful.

5.5 WHAT: The Strategic Limitation and Sabotage

All kinds of power has possessed or exercised to achieve something in favor of the power owners. In the first part of the field research, the visible benefits are shared and discussed. However, referring to the Veblenian "industrial sabotage" concept, it is claimed in this thesis that, the risk and profit oriented sector, which is obsessed with creating new markets, new consumption mechanisms and giving investment confidence, also strategically limit and sabotage the production for the sake of differential accumulation or in favor of the differential profit growth of the dominant capital owners. In the certified sustainable real estate sector, sabotage and strategic limitation also come forward as a side effect and consequence.

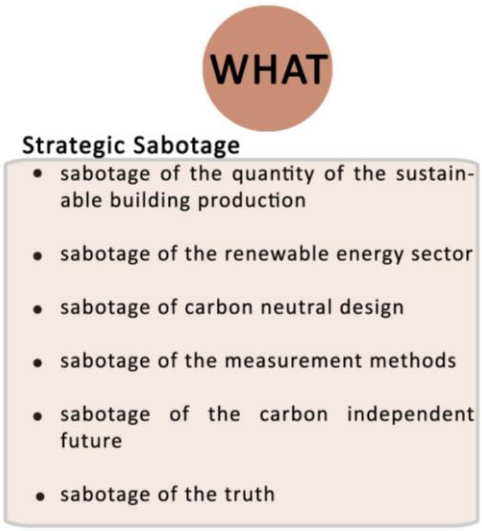


Figure 30 WHAT Model

So, in the last part of the field research, the speeches and statements of interviewees are collected and interpreted to enlighten the sabotage of the quantity of the sustainable production by making it expensive and luxurious, fisible only for some certain priviledged clients and neighborhoods, the sabotage of the renewable energy production, the strategic limitation of carbon neutral design, the strategic limitation of the knowledge production and distribution, the sabotage of the measurement methods, the sabotage of the carbon independent future and finally the sabotage of the truth.

5.5.1 Aspects from Istanbul

> "… Green building certificates increase the construction cost by 10 to 25 percent depending on the type of certificate. At the same time, they also increase the rental return of the building. For example, while square-meter of the building is rented out for 45 dollars, with certificate, it becomes 50 dollars. However, such certificates are always obtained for buildings in good locations. It is illogical to get certificate in the locations where the unit sales/leasing price is low."

	Rent	Utility Bills and Maintenance Charge	Total Monthly Expenditure
With Certificate	9	2	11
Without Certificate	8	3	11

Table 1 The Estimations of the Real Estate Appraiser interviewed

> "… The landlord cares the rental he will collect only, and knows that he will collect higher rentals with a certified project. And the tenant prefers a certified building better, because he knows that he can live in a higher-quality building without any change in his total monthly expenditures. However, in a neighbourhood where the average rental is low, acquiring a certificate is not feasible, as it will be impossible to reflect such rise in cost to the rental. Moreover, since mostly buildings with lower construction cost are built in the neighbourhoods with low average rental, and since obtaining a certificate will increase the construction cost in percentage, it is illogical to obtain certificate in neighbourhoods where the income level is low."

As stated in the interview by the vice manager of the real estate appraisal company that works with the major banks in Turkey, there are locations in the city for which obtaining a certificate is illogical. This may sabotage the quantity of the green certified building production, and may cause many owner investors, who are sensitive to environmental degradation but have trouble finding resources for finance, abandon their desire to have a certified residence or building. It may also strengthen the image of being a luxurious consumption object, which is only obtained for luxurious buildings in certain rich neighborhoods.

> "… In other words, in my opinion, it must be a little more localized. LEED is something of American origin. BREEAM is British origin. Actually, I wish it were a little localized, because this happens in some cases: I'm required to do it to get point, and that's not nice."

So there are things being done for getting points, even if they could not be supported. It sabotages the architect and the work done. Although the architect does not consider it as useful and necessary, s/he changes the design decisions in order to get points.

> "… In order that a building can be green, put emphasis on water, fuel, and facade. It goes like clockwork. However, put a bicycle parking place, for instance. And let it have a shower. This, for instance, is not something we would think about. When there is a certificate, we do it, and this is done now even in a chaotic city like Istanbul."

Instead of focusing on the real problem and dealing with the most basic things that are needed to solve it, the focus of the designer is distracted with bicycle parking and shower design to obtain points in a metropolis which is in fact full with main streets with no bicycle roads to bike.

> "… It does not increase the construction costs too much. Naturally, this depends on the type of certificate you will obtain. If you will obtain LEED Platinum, then you should make another design. That is to say, you should do that at the design stage, not at the construction stage. However, if you say "I'll get basic", then you already get LEED basic when you use LED in your lighting armatures, when you use green urinals, and when you build a green roof. And use a re-use for the door. I mean, if you have the door made of reused raw materials, you already get LEED basic. That is to say, it's not something that depends on design."

These are the words of an investment bank employee who is a Leed associate and an electrical engineer mentioning about the simplicity of obtaining a certificate. He reveals the fact that a certificate, perhaps the most preferred one by companies for its benefit to the image, can be obtained even for a building that has very little sensitivity to the environment and its surroundings.

Again, the below given statements made in the interview by a senior architect who works in one of the most important architectural offices in Istanbul, explain how certifications sabotage obtaining a more sustainable environment.

> "… For instance, in my opinion, the house that generates its own power is the most important thing. The ability to generate and tansform the energy is the most important criterion for the sustainability of a house. It is obviously the right thing to obtain the construction materials from the nearest source, in the easiest way, but the main point is to generate energy in house."

> "… Since they cannot go beyond of being a sales policy, the certifications such as LEED get stuck in there, and cannot be sustained. They become obsolete. In other words, something setting out to achieve sustainability cannot sustain itself."

> "… There is a certain reinforcement standard and a certain concrete standard now. Likewise, we have to introduce the sustainability standards into the architecture, the entire urban life. As long as we don't do that, it's impossible to achieve a real sustainable change with the motto of 'LEED-certified building sells better'."

> "… I don't much believe that the sustainable production or development is sustainable unless it is supported with laws, building codes, government policy, and a number of regulations."

These statements above very well summarize that it is an application that reduces resistance, sabotages production, and pretends to make a real change while in fact sabotaging the change itself.

> "… Actually, energy is the biggest reason of our (Turkey's) current account deficit. We should decrease it. And in order to accomplish this decrease, this issue should be made more popular among the common people."

Fossil based nonrenewable energy has a very large market volume and profit margin. Turkey's external dependence for energy is around 70%. Only 35% of the remaining 30% is obtained from renewable energy sources. Of this, 26% is obtained from dams and hydroelectric power plants, and only 10% consists of wind, solar and geothermal energy use (Enerji ve Tabii Kaynaklar Bakanlığı Strateji Geliştirme Başkanlığı, 2016). While using renewable energy so little, we cannot go beyond a clean energy strategy that is made look like a basic application with a handful of certified buildings. It provides a very simple change obtained by construction projects which already are the most prestigious and luxurious projects of the country executed by the biggest construction companies. Construction companies are therefore considered as environment-friendly. Those who live in those buildings are considered as environmentalists. But what is really obtained - in terms of reducing the burden on environment - is almost nothing. However, it is exaggerated. A great "reputation economy" is created with talks, advertisements, twitter shares, websites, interviews of USGBC chairmen with major magazines and conferences.

> "… Unless they cannot be sustained and turn into a mainstream movement in the big economies like China, India, Russia, the US, and Japan, the environmentalist certifications become meaningless, and cannot survive. The real change and benefit cannot be achieved with individual examples in Turkey or Hungary. Additionally, if countries do not adopt the use of renewable energy as a real strategy, all of these will be to no avail. Just like when you charge your electric car with the power generated by using fossil energy sources, that is to no avail as well."

If the terrible gap between the completed and undergoing investments in fossil-based energies and the investments in renewable energies is not removed, as stated by the architect I interviewed, and if governments do not replace oil, natural gas and coal with renewable energy sources as their primary energy generation strategies; all these certifications and the green material market will unfortunately reduce

resistance and will not be able to go beyond being a sabotage strategy that will build an environment-friendly image. What is basically sabotaged here is revelation of the fact that the carbon market, which brings and will continue to bring enormous cash, gives great damage to the nature and creates a highly unjust income distribution; as the biggest companies in the world are oil companies and the individual market value of some of them is more than the total wealth of many countries. While the executives of the companies that invest in renewable energy and ministers of energy share information on their investments in renewable energies through Twitter every day, CEO of the green building council announces the new versions of their certifications and many more "interesting" events, and celebrities share their messages supporting the councils through social media; oil companies quietly continue to sell a great part of the energy consumed to the world. Here, it is worth remembering the concept of "mobilization of bias" again. I think the matter in question here is deficient transfer of information, as a mechanism preventing decision-making. I think that the resistance to be shown widely to this sensitive issue is hindered by sabotaging the distribution of information. As the architect I interviewed also pointed out; unfortunately it seems that the renewable energy market, which remains a small percentage of the entire energy sector, will not be able to undergo a real transformation in the near future, and will only contribute to sabotaging the fact.

The same architect continues with his statements below.

> "… When a certificate is to be received, the liquids used in chillers or cooling towers are selected from among special, fully environment-friendly products that do not damage the ozone layer at all. However, what will happen if, after obtaining the certificate, the certified buildings are not inspected during their use and begin to use liquids that damage the ozone layer? If you do not inspect the certified buildings periodically, that certification will become meaningless. However, if we do not develop a real strategy to shift to the renewable energy in the

> entire country, all such certifications will also be nothing but a square peg in a round hole. In Turkey, it doesn't go beyond the thought of spending a little more, using more luxurious materials, and thus obtaining certificate for houses, offices that are already luxurious. In Istanbul, the average price of a house is 2,000,000 dollars in Çiftehavuzlar neighbourhood while it is 250,000 dollars in Kozyatağı neighbourhood. What difference could it make for the developer to obtain LEED certificate for an apartment in Çiftehavuzlar and increase its construction cost a little more? None at all. He prefers to obtain it considering that it will attract the buyer or the tenant."

It is a fact confirmed by all interviewees that the building sites are well controlled during the certification process. However, the architect I interviewed draws attention to the use phase of a building, which is the phase when energy is consumed at most. And he reveals that there is no control over the process, which would make the real difference. And of course, by this statement, he reemphasizes the illogicality of obtaining a certificate for some neighborhoods, as also stated by the real estate appraiser above.

The same architect continues to say things that will enable us to make many inferences about the quality of the certifications.

> "… A national green building consultancy company, which has visited us to express the certification process, explained a case to describe their business that they have noticed a gap on the facade in a project, found it, and filled it with silicone. This can work in Turkey, but it is too weak considering the standards to which our company is subject. As company, we already build the projects by having such tests made: acoustical test, whether performance test, on-site quality control sample test, and site hose test. For example, when we want to obtain BREEAM certificate, it is sufficient to buy a little different materials, which meet their standards. Such as woods from the trees grown in special forests, stones

made of recycled materials, or rough construction sub-base filler made of materials cracked from another construction. Recycling rainwater in the construction is already a must. However, obtaining a certificate is the sum of all these requirements gathered together into a trademark, a label. It absolutely recompenses the nature in the process. Even if only a single thing is done, it recompenses the nature. What is more important than money is that it recompenses the nature. Actually, all of these are things that must be done without giving a special name. Just so that the conditions requiring using the cooling systems much less can be created."

In other words, when we talk about the quality of certified buildings, we actually refer to a quality that is way below the quality of buildings constructed by a good construction company in Turkey, which is undertaken the construction of American consulate buildings in the Middle East, many airports and stadiums in the Middle East and Russia.

5.5.2 Aspects from Europe – Brussesls

Below are the opinions of an architect - who is the founding partner of an office with 67 employees, which has been operating in Brussels for 27 years and realized projects in all scales - regarding certifications, as he has started to work for obtaining a BREEAM certificate for one of the current projects.

"… Well, they (the certifications) are all and always, by its very essence, very limited. It's like laws or standards. Yet, they are useful. I give you an example. You might know the British system BREEAM. Typically, this is a very limited system. And it's very British. So, you cannot get as many points in the world as in Britain. And we are now, by the way, in long discussion with BRE, to show them the limitation and the appropriacy of their approach. It is scientifically and extremely critical. Yet, I'll explain to give some idea of what it is. But it is absolutely not a scientific system.

> It is a technological system that you know that creates a relative approach. But, for example, when you built something in a floodable area, you lose Breeam points. It doesn't make sense. Because if, for all social and cultural reasons, the only place where you can build, is a floodable area, you cannot deprive people to built there. And BREEAM does not allow people to built the only place where they can built. So, what is the point to give you bad points if you oblige to build there. And it's very funny, because we are now exactly on BREEAM challenging the BRE on most of the criteria, where we can give counter example as valid as what their religion, and which are equally good for the environment. But the BREEAM doesn't allow you to go in that direction. So, I would say BREEAM would be a good system, if it would allow for alternative schemes, which you can prove scientifically to be at least as good as theirs for the environment. Yet, you can compare the standards that have been dictated after the Second World War, so that all over the Europe, we could use the same nails, and the same screws, and the same bonds. It's a detail, but you know in the fifties, there were as many types of bonds, screws, and nails as the number of villages. But, it is a progress, one had to agree, the standardization of the bonds, screws and nails. And it is not because we are accepted that those are the best bonds, screws and nails. Nevertheless, there is progress. It is the same for BREEAM. It's an intellectual discipline and nothing more."

The architect underlines that certificates are the agents bringing standardization and preparing the ground to speak a common language. But, he also adds that they are nothing more than that. At this point, I would like to remind how certifications are turned into means for luxury consumption and how they provide ease of sale and leasing in luxury buildings, especially in developing countries with high urbanization rates. Likewise, if value is something that exists as far as it is impressed on the potential buyer, I would also like to draw attention to the difference between the

value considered by this experienced architect I interviewed and the value impressed on the potential buyers in developing countries. Introducing something that offers a standard quality as a guarantor of luxury consumption and quality is the most successful version of sabotaging the quality of production.

5.5.3 Aspects from North America – New York and Vancouver

If we consider that residential buildings will make the real change, we see how it is made look like there is a climate responsive movement with certificates obtained for a few number of educational buildings and commercial buildings, along with a large stock of residences made of plywood. The below given statements of the architect I interviewed in New York explain this.

> "… The percentage of the certificates are also very law in US."

> "… University buildings and school buildings have the certificates. For residential buildings, you cannot find any certificates. For some commercial buildings, yes there is. They will become sustainable with the u values and passivhaus. But we're (USA) years away (than Europe) for the moment."

Again, the statements of the same architect about what the sector in New York understands from sustainability displeasingly show how sustainable architecture has been oversimplified, which in fact should be site-, climate-, and culture-specific.

> "… The only sustainability we care is the u-value. Not only glass, but all the systems, the metals, wood, and whatever we have. We have some certain U-values. The mechanical engineers have to know what the u-value of a building is, so that they can design their systems."

The architect I interviewed from Vancouver also says that the marginal cost of going green in the city of Vancouver is scarcely any because the cost of construction projects and the land prices are already very high. However, he also states that this marginal cost would be much higher in a standard house made of plywood in America.

> "… Everything in Vancouver is really expensive. So, land is really and really expensive and buildings are expensive. So, because everything is expensive, the marginal cost of going green is pretty small. So, if we do a passive house project in Vancouver, there might not be any premium versus another custom home. But if we really go to say suburban Oklahoma or somewhere where buildings are 100 dollars per square foot, the premium to one of our projects would be 300%. If we'd go to compare a suburban American cheap 2x4 stick frame house, yes. This is because everything we are doing here is much more expensive anyway independent of the green stuff. So you go to the suburban America and you find a cheap truck house and it's 100 dollars box a square foot. But here, it's 250 or 300 dollars per square foot."

> "… For the clients, the main thing is to get a building that is very comfortable and high-quality and saving energy. But because the energy is cheap, it's not really the main driver. The main thing is that you're doing a very high-quality comfortable building. That is also environmentally friendly and as a co-benefit it also saves some energy."

These words of the architect from Vancouver remind me of obtaining certificates for the most prestigious projects, which are already located in the most expensive locations in Istanbul. Vancouver has published an Energuide for the buildings constructed after 2009. According to this guide, by 2020, all the residences built after 2009 will be carbon neutral and use 50% less energy than the residences did in

2007. This first looks like realization of the dream of sustainability made compulsory by law in residences. However, when it is considered that the privilege had by only certain districts in a city like Istanbul, spreads to the whole city in Vancouver, we should understand that although this guide used for the buildings constructed after 2009 will definitely be beneficial, it is in fact not a real change.

> "… So, when you look at some of these systems, as a market transformation tool, I think they have been quite successful. But when you start digging deeper, things are changing. The city of Vancouver started to looking at their climate change targets and they realized that LEED wasn't gonna get them where they really need to be, which is why they started to another system about passive houses delivering real performance on the energy side."

These statements of the architect also reveal the limited capacity of the certifications. Of course, there are many cities like Vancouver around the world. However, unless similar movements are initiated in developing economies with massive urbanization, we cannot even get close to the transformation we need with steps taken in certain favorite places in the world.

5.5.4 Aspects from the Aclinic Line – Kuala Lumpur

An architect I interviewed, who has realized countless projects in Malaysia and continues working at his office by himself, speaks about a fact which I have thoroughly explained in my thesis. Certificates are indeed supported and developed by companies, even if indirectly.

> "… Certifications and labels are ridiculous, because they are created by businessmen, who certainly have objectives for personal gain. In fact, in

> a lot of these certifications, you need to first provide air-conditioning to qualify for. This makes all these certifications ridiculous."

Green building certifications, although containing rules on safety and working conditions of construction workers, have not developed any rules for workers who are responsible for the cleaning and maintenance of the buildings during the stage of building use.

> "… You need to provide just as wonderful space for the people who clean your building as the people who rent the space in your buildings. Because the biggest users of your buildings are not the ones who own it, they are the ones who clean and maintain it. They are there from six o'clock in the evening to eight o'clock next morning. We don2t realize this. And in Malaysia and a lot of the developing countries, I'm sure the biggest users of your house are your cleaners your maids. And we never think about this."

While certifications direct all their attention to the developers, buyers and tenants of the buildings, another group of users that I also have never considered until this interview is the group of workers responsible for cleaning and maintenance. The fact that green building councils that conduct extensive research for owners, developers and tenants do not have any concerns about other users of the building also sabotages sustainability.

5.6 Inferences from the Fieldwork

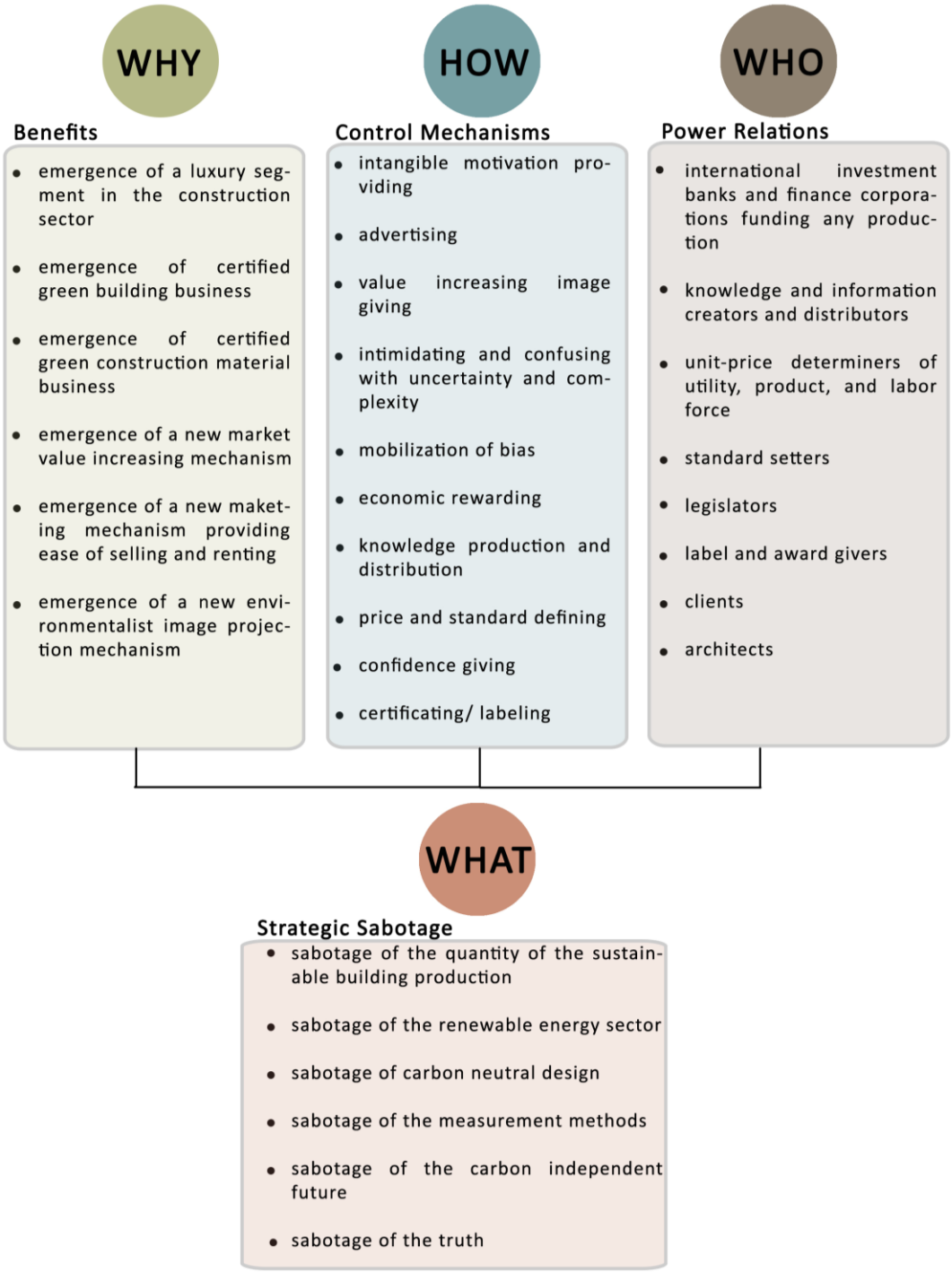


Figure 31 WHY-HOW-WHO-WHAT Model of the Fieldwork

As it is repeatedly expressed in this study based on the power theory of value, there is the control of finance sector over industry. And the financial institutional

organizations, which are obsessed with the determination of the capitalization particles namely; future income, hype, risk and discount rate; strategically sabotage and limit the industry. In the fieldwork, the interviews have been conducted to trace this strategic sabotage and limitation and its reasons, its control mechanisms and its actors being contributed to this sabotage in the certified sustainable building industry. As a synthesis of all the work, these four categories are united and the model above is prepared.

6 CONCLUSION

Troughout this doctorate study, the duality of politics and economics has been regarded. And beyond any financial concern and financial value calculation, the problem of ownership, which is the question of organized and quantified power, rather than production has taken into account. It has been tried to integrate power into the certified sustainable building landscape and its capitalization. As implied by the power theory of value, the risk adjusted discounting to present value of expected future earnings, which is claimed as a matter of power, is considered as the shaping 'economic' fundamental that organizes daily life in the global context. And it's also pondered as the main motivator behind the certified green building business. So, the order of production and consumption in the sector has been concerned not only in the realm of economics – well-being, free choice, exchange and equilibrium, but also especially in the realm of politics – power, authority, command, manipulation and dissonance. Looking at the green building sector thorough this lens has been discoursed and discussed in two ways in this dissertation – literature review and expert interviews' critiques.

In the literature review, firstly, the capital-as-power approach has been used to develop a comprehensive understanding on the notions of risk, capitalization, strategic sabotage and power. And, it has been investigated how the manufactured risks are produced and capitalized by the institutional power in the pursuit of obedience extraction and profit growth. Secondly, the capitalization of climate related risks in the certified green building business have been researched. How the major non-governmental third party actors and the capitalist power behind this third party governance form and transform an order of sustainable architecture through the control of perception management and value measurement methods was questioned and tried to be answered with the extensive analysis of the current study results. The capitalization of 'sustainable' design in the property sector and the value adding mechanisms of 'certified' sustainability have been studied and

discussed in two levels – the property and the company level. Critisim voiced to the value measurement methods – ambigious, risk aversive, and not performance and use value oriented – was expressed.

In the expert interviews' critiques, in the first step, it has been questioned about the historical trends and details of the climate responsive architecture and how the historical development of environmentally engaged architecture has continually transformed along with the ever-changing political-economic system and the ever-changing concerns and the priorities of the building economics profession. And an interface was prepared accordingly. The traces of strategic sabotage concept, as it is introduced in the capital-as-power framework, have been searched historically and the fraction experienced in the 90's with the introduction of green building councils and their rating systems has been outlined. In the second step, in the current present context, the probable restrictive and limiting impacts of institutional power, its network of relations, its mechanisms used in the pursuit of differential accumulation and its reasons behind this institutional control in the certified green building market and in the related material and energy markets have been quested. For this reason the semi-structured in depth interviews have been conducted with the architects and valuation experts.

For lower business uncertainty and for greater capitalization, the capitalist power try to control and sabotage the quality and the quantity of the production as in all the other sectors also in the certified green building business. In order to mitigate with the climate change, for which it's majorly responsible, and to control the resistance against its consequences, the property sector uses different sabotage strategies. The environmentalist stance and approach, which should become a mass- and global-movement and the very basic implication, has been converted into a luxury consumption mechanism and a sales strategy in high-end neighborhoods and cities thorough the penalties, rewards, incentives, certifications, pricing policies and building codes. In the spatial dimension, in the places where the level of wealth is high and the urban development pace is low, sustainable constructions have

become the part of prestige and environmentalist image making. Of course, there are the exceptional practices, policies and attitudes especially in the developed economies. During the interviews, my interview partners also underlined the presence of these exceptional cases. In Iceland, for instance, all the energy is produced from renewables. Or in Germany, the environment friendly products are promoted by tax reductions and in the referendum hold, to pay more taxes has been approved in order to support the clean energy production technologies. The architects that I've talked from Belgium, Canada, Germany and Turkey have declared that they have clients volunteer to pay more just because of their environmental sensitivities. Or there are many architects in the world like the ones that I've conducted interviews from Ecuador and Malaysia, who reject the clients or the projects, which do not regard the environment and the society. There are also many architects like my interviewee from the U.S., who use the deficiencies in the laws and policies as an opportunity to design more climate responsive projects. However, the concept of strategic sabotage in this dissertation has been searched in the works of the actors, who produce the mainstream information, value, and physical space in the certified sustainable building business with reference to systematically produced control mechanisms.

6.1 Recommendations for Future Research

Theoretically, the importance of the use-, cultural-, social-, aesthetic- value, worth, performance of sustainable design should be more deeply elaborated, because this is the most critical aspect fostering sustainable constructions. Also further attempts to correlate those and the net present value calculation or capitalization is needed. More the studies are developed to build this correlation, more the potential buyers/investors will be aware of the benefits and advantages of sustainable design. Empirically, the reflections and the affects of these certification systems in the green building market on the related energy and material markets should be explored with an interdisciplinary research.

In the future research, it is also required to research in the locations, where the certified green buildings most concentratedly produced. Because of spatial restrictions, within this study, it hasn't been focused enough to those countries and their cities drawing the attention with their remarkable number of certified green projects. Additionally, there is the necessity of investigation in the profits gained from the green certifications sequentially for the owner- and portfolio- investors. And last but not least, the presence of the strategic sabotage concept claimed in this dissertation in the certified green building production should be searched financially.

LIST of FIGURES

LIST of TABLES

BIBLIOGRAPHY

Eclipse Research Consultants. (2005). *Better Designed Buildings: Improving the Valuation of Intangibles.* UK: DTI.

Çınarlı, İ. (2009). Risk Toplumundaki Sorumluluk Kavramı ve Medyanın Risk İletişimindeki Rolü Üzerine. In İ. Çınarlı, *Belirsizlik Toplumu'nun krizi* (pp. 3-19). İstanbul: Beta.

Adomatis, S. K. (2015). The Challenges of Valuing Green. *The Appraisal Journal* , 25-30.

Aiello, S. (2010). Addressing Financial Objections to Sustainable Design and Construction. *Journal of Green Building* , 67-77.

Ak, S. (2014). *Green Building Materials Market - Global Industry Analysis, Size, Share, Growth, Trends and Forecast, 2013 - 2019.* New York: Transparency Merket Research.

Beck, U. (1992). *Risk Society: Towards a New Modernity.* London: Sage Publications.

Beck, U. (2000). *What is Globalization?* Cambridge: Polity Press.

Bichler, S., & Nitzan, B. (2017). *Growing through Sabotage - Energizing Hierarchical Power.* Jerusalem and Montreal: Creative Commons.

Bowles, S., & Gintis, H. (1993). The Revenge of Homo Economicus: Contested Exchange and the Revival of Political Economy. *The Journal of Economic Perspectives* , 83-102.

Brennan, J. (2009). *Review of Nitzan and Bichler's "Captial as Power: A Study of Order and Creorder".* Ontario: York University.

Brownell, C. (2014). Toronto’s urban forest is worth $7-billion — or $700 a tree. *Financial Post* .

Caraça, J. (2017). Kültürlerin Ayrılması ve Modernitenin Gerilemesi. In M. Castells, J. Caraça, & G. Cardoso, *Sonrası: Ekonomik Kriz Kültürleri* (pp. 47-59). İstanbul: İstanbul Bilgi Üniversitesi Yayınları.

Carmona, M. D. (2002). Stakeholder Views on Value and Urban Design. *Journal of Urban Design* , 145-169.

Chegut, A., Eichholtz, P., & Kok, N. (2013). Supply, Demand and the Value of Green Buildings. *Urban Studies* , 1-22.

DiMuzio, T. (2011). Capitalizing a future unsustainable: Finance, energy and the fate of the market civilization. *Review of International Political Economy* , 363-388.

Dowding, K. (2006). Three-Dimensional Power: A Discussion of Steven Lukes' Power: A Radical View. *Political Studies Review , 4* (2), 136-145.

Dunbar, R. (1992). Neocortex Size as a Constraint on Group Size in Primates. *Journal of Human Evolution* , 469–493.

Eichholtz, P., Kok, N., & Quigley, J. M. (2010). Doing Well by Doing Good? Green Office Buildings . *The American Economic Review* , 2492-2509 .

Eichholtz, P., Kok, N., & Yonder, E. (2012). Portfolio Greenness of the Financial Performance of REITs. *Journal of International Money and Finance* , 1911-1929.

Enerji ve Tabii Kaynaklar Bakanlığı Strateji Geliştirme Başkanlığı. (2016, December 8). *2017 Yılı Bütçe Sunumu.* Retrieved September 28, 2017, from https://goo.gl/ssbmDq

Falkenbach, H., Lindholm, A., & Schleich, H. (2010). Environmental Sustainability: Drivers for Real Estate Investor. *Journal of Real Estate Literature* , 201-223.

Ferguson, N. (2009). *The Ascent of Money: A Financial History of the World.* London: Penguin Books.

Fix, B. (2015). *Rethinking Economic Growth Theory from a Biophysical Perspective.* Cham: Springer.

Foster, H. (2004). *Tasarım ve Suç.* İstanbul: İletişim Yayınları.

Foucault, M. (1978). *History of Sexuality.* New York: Pantheon Books.

French, N., & Wiseman, G. (2003). The Price of Space: the Convergence of Value in Use and Value in Exchange. *Journal of property Investment and Finance* , 23-30.

Gale, T. (2008). Retrieved September 16, 2017, from International Encyclopedia of the Social Sciences: http://www.encyclopedia.com/social-sciences-and-law/sociology-and-social-reform/sociology-general-terms-and-concepts-102

Gans, D. (2014). Big Work: Le Corbusier and Capitalism. In P. Deamer, *architecture and Capitalism 1845 to the Present* (pp. 98-112). New York: Routledge.

Gemmil, B., & Bamidele-Izu, A. (2002). The Role of NGO's and Civil Society in Global Environmental Governance . In D. Esty, & M. Ivanova, *Global Environmental Governance* (pp. 1-24). Connecticut: Yale School of Forestry & Environmental Studies.

Giddens, A. (1999). Risk and Responsibility. *Modern Law Review* , 1-10.

Gore, A. (2014). *The Future.* London: WH Allen.

Gramsci, A., Hoare, Q., & Nowell-Smith, G. (1971). *Selections from the prison notebooks of Antonio Gramsci.* New York: International Publishers.

Guy, S. (2012). Whiter "Earthly" Architectures: Searching for Sustainability. In G. Crysler, S. Cairns, & H. Heynen, *The Sage Handbook of Architectural Theory* (pp. 555-572). London: Sage.

Guy, S., & Moore, S. (2007). Sustainable Architecture and the Pluralist Imagination. *Journal of Architectural Education* , 15-23.

Hin Ho, K., Rengarajan, S., & Han Lum, Y. (2013). "Green" Buildings and Real Estate Investment Trust's Performance. *Journal of Property Investment and Finance* , 545-574.

Holowka, T. (2013). *LEED in Motion: People and Progress.* Washington, DC: USGBC.

Houghton, J. D. (2010). Does Max Weber's notion of authority still hold in the twenty-first century? *Journal of Management History , 16* (4), 449-453.

Jarzombek, M. (1999). Molecules, Money and Design: The Question of Sustainability's Role in Architectural Academe. *Thresholds* , 32-38.

Jarzombek, M. (2003). Sustainability, Architecture and "Nature". Between Fuzzy Systems and Wicked Problems. *Thresholds* , 54-56.

Jones, E. D. (2014). Irrational Exuberance: Rem Koolhaas and the 1990's. In P. Deamer, *Architecture and Capitalism: 1845 to the Present* (pp. 150-171). New York: Routledge.

Klein, N. (2007). *The Shock Doctrine: The Rise of Disaster Capitalism.* New York: Metropolitan Books/Henry Holt.

Kogod, L. (2014). The Display Window as Educator: The German Werkbund and Cultural Economy. In P. Deamer, *Architecture and Capitalism 1845 to the Present* (pp. 50-68). New York: Routledge.

Lützkendorf, T., & Lorenz, D. (2007). Sustainable Property Investment: Valuing Sustainable Buildings through Property Performance Assessment. *Building Research and Information* , 212-234.

Larudee, M. (2011). Book Review: Capital as Power. *Review of Radical Political Economics* , 418-420.

Leopoldsberger, G., Bienert, S., Brunauer, W., Bobsin, K., & Schützenhofer, C. (2011). Energising Property Valuation: Putting a Value on Energy-Efficient Buildings. *The Appraisal Journal* , 115-125.

Loe, E. (2000). *The Value of Architecture.* London: RIBA Future Studies.

Lorenz, D., & Lützkendorf, T. (2008). Sustainability in Property Valuation: Theory and Practice. *Journal of Property Investment and Finance , 26* (6), 482-521.

Lupton, D. (1999). *Risk.* London: Routledge.

Lyotard, J. (1979). *The Postmodern Condition: A Report on Knowledge.* Manchester: Manchester University Press.

Lyotard, J., G., B., & Massumi, B. (1984). *The Postmodern Condition: A Report on Knowledge.* Minneapolis: University of Minnesota Press.

Macmillan, S. (2004). *Designing Better Buildings: Quality and Value in the Built Environment.* London: Spon Press.

Macmillan, S. (2005). The Valuation of Intangibles. *RIBA Journal , 112* (9).

Macmillian, S. (2006). Added Value of Good Design. *Building Research and Information* , 257-271.

McGraw-Hill Construction. (2013). *World Green Building Trends.* Bedford: McGraw-Hill Construction.

Munro, A. (2016, February 16). *Robert A. Dahl AMERICAN POLITICAL SCIENTIST AND EDUCATOR.* Retrieved September 15, 2017, from Encyclopaedia Britannica: www.britannica.com/biography/Robert-A-Dahl

Myerson, G. (2001). *Ecology and the End of Postmodernism.* Totem Books.

Nadeau, L. (2004). Participation in Voluntary Programs, Corporate Reputation, and Intangible Value: Estimating the Value of Participating in EPA's ENERGY STAR

Program . *Corporate Environmental Behavior and the Effectiveness of Government Interventions* (pp. 43-87). Washington: National Center For Environmental Economics .

Navarra, D. (2004, June 29). *Conceptualizing Risk: A Theoretical and Practical Agenda*. Retrieved March 04, 2015, from Fondazione Bassetti: http://www.fondazionebassetti.org/06/navarra/000281.htm

Nitzan, J. (2011). Differential Accumulation: towards a new political economy of capital. *Review of International Political Economy* , 169-216.

Nitzan, J., & Bichler, S. (2009). *Capital as Power: A study of order and creorder.* London, U.K.: Routledge.

Nitzan, J., & Shimshon, B. (2012). Capital as power: Toward a new Cosmology of Capitalism. *Real-World Economics Review* , 65-84.

Nitzan, J., Bichler, & Shimshon. (2000). Capital Accumulation: Breaking the Dualism of 'Economics' and 'Politics'. In R. Palan (Ed.), *Global Political Economy* (pp. 67-88). London: Routledge.

Ogurlu, A. (2015). Tebessümle Sabotaj: Waitrose ve Sıradan İnsan. In A. Öncü (Ed.), *Thorstein Veblen: Kullanım Kılavuzu* (pp. 287-314). Istanbul: Habitus Yayıncılık.

Ouroussoff, N. (2007). Why Are They Greener than We Are. *The New York Times Magazine* .

Pyla, P. (2008). Counter-Histories of Sustainability. *Volume* , 14-17.

Qian, Q. K., Chan, E. H., & Choy, L. H. (2012). Real Estate Developers' Concerns about Uncertainty in Building Energy Efficiency Investment - A Transaction Costs Perspective. *Journal of Green Building* , 116-129.

Rübner Hansen, B. (2011). Review-Articles. *Historical Materialism* , 144-159.

Sadler, S. (2014). The Varieties of Capitalist Experience. In P. Deamer, *Architecture and Capitalism: 1845 to the Present* (pp. 115-129). New York: Routledge.

Sayce, S. (2004). Incorporating Sustainability in Commercial Property Appraisal: Evidence from the U.K. *The 11th European Real Estate Society Conference.* Milan: Kingston University.

Schuldenfrei, R. (2014). Capital Dwelling: Industrial Capitalism, Financial Crisis, and the Bauhaus's Haus am Horn. In P. Deamer, *Architecture and Capitalism 1845 to the Present* (pp. 71-95). New York: Routledge.

Sedlacek, S. (2014). Non-Governmental Organizations as Governance Actors for Sustainable Development: The Case of Green Building Councils. *Environmental Policy and Governance* , 247-261.

Sedlacek, S., & Maier, G. (2012). Can Green Building Councils serve as Third Party Governance Institutions? An economic and Institutional Analysis. *Energy Policy* , 479-487.

Sewell, W. H. (1992). A Theory of Structure: Duality, Agency, and Transformation. *American Journal of Sociology , 98* (1), 1-29.

Spencer, D. (2016). *The Architecture of Neoliberalism: How Contemporary Architecture Became an Instrument of Control and Compliance .* New York: Bloomsbury Publishing.

Tabb, J. P., & Deviren, S. (2013). *The Greening of Architecture.* Burlington: Ashgate Publishing Limited.

Teegen, H., Doh, j., & Vachani, S. (2004). The importance of nongovernmental organizations (NGOs) in global governance and value creation: an international business research agenda. *Journal of International Business Studies* , 463-483.

The European Group of Valuers' Association. (2010). *Specific Legislation and Practice.* Brussels: TEGoVA.

Thomas, B. (2012). Eisenhower Paved the Way for REIT Investors to Enjoy Durable Dividends. *Forbes* .

Thompson, C., & Tambyah, S. K. (1999). Trying to Be Cosmopolitan. *Journal of Consumer Research* , 214-241.

Turchin, P., & Gavrilets, S. (2009). Evolution of Complex Hierarchical Societies. *Social Evolution and History* , 167–198.

United Nations Department of Economic and Social Affairs. (2014). *World Urbanization Prospects The 2014 Revision.* New York: UN.

Vakili-Ardebili, A. (2007). Complexity of Value Creation in Sustainable Building Design. *Journal of Green Building* , 171-181.

Van der Ryn, S., & Cowan, S. (1996). *Ecological Design.* USA: Island Press.

Vimpari, J., & Junnila, S. (2014). Value Influencing Mechanism of Green Certificates in the Discounted Cash Flow Valuation. *International Journal of Strategic Property Management* , 238-252.

World Green Building Council. (2013). *The Business Case for Green Building: A Review of the Costs and Benefits for Developers, Investors and Occupiers.* WGBC.

Zaera-Polo, A. (2014). Ecotectonics. *Perspecta 47: The Yale Architectural Journal* , 129-139.

APPENDIX – EXPERT INTERVIEW TRANSCRIPTS

Interview I

Interviewee: Architectural Design Office – Senior Architect

Place: Vancouver

Date: 13.07.2017

- What makes an architectural project environmentally and socially engaged or sustainable/ good designed?

For us, we tend to focus on the energy efficiency of the buildings that means building beyond the code. We are now doing a lot of passive house projects. We also like to do things and relate to recycled materials, local materials, rainwater reuse. Our primary focus is on energy and climate.

- What factors (designer's will and knowledge, client expectations, economic benefits) determine the most the realization of a sustainable/ graceful architectural project?

There is a few things. A lot of the projects, that we going are urban and infill projects. So they are much better in terms of their transportation demand impact as compared to rural projects. What regard the buildings themselves, part of it's driven by the building code and Vancouver has a fairly aggressive energy code. And, part of it is driven by our own branding as a company, because we brand ourselves as energy efficient designers and builders. And so, when clients come to us, some come specifically because of that. There are others who come, just because they like our design. But when they learn about energy efficiency they like that and then there are others who really don't care about energy efficiency at all. They are just coming for the design and construction.

- Does it matter for you to have a certification/label for the sustainability of the project that you designed? Why?

Not typically, except for, now, as the six months and so, the city of Vancouver has incentive programs for certified passive house projects. So, those are zoning relaxations and potentially money incentives. So, before that though there wasn't really much of incentive for doing any kind of certification. We even didn't done any LEED certified projects. We were required by the city of Vancouver an inner guide reading. Inner guide is a Canadian Energy Efficiency Rating System. And so again, we are doing it each project, because the city is requiring it.

- Do you know how the sustainability characteristics of a building affect the financial value of that building?

The financial value!?!? It's hard, because in Vancouver right now, there has been a very strong market demand for any kind of building. And so, there is less marketing differential for green building. That's part of why, I think, we haven't seen a strong demand for certification in Vancouver by the market point of view. It's all been driven by the city requirements. Part of that is our electricity and gas are really cheap here. So, people really don't care. And in the macro level, the other are maybe the 10% of the market that does, just because they really are into the green stuff. Actually, it's partly more than that. I mean, in Vancouver, people identify as a pretty high rate as being green in terms of their lifestyle, but there is not a strong economic driver for efficiency. Because energy is so cheap.

- Does the financial valuation practice affect (the sustainability characteristics of) your design? If it does, how? Have you ever restricted by your clients or by any other professionals (like real estate appraisers, investors, bank officers, or insurers) about your (sustainable) design decisions with the worry of payback period or any other financial concern (like vacancy rates, increased sales prices/ rents)?

Yes, I mean, there is always a budget. There is always a concern. For us, we have a kind of a basic level of performance, that we always do. And then, beyond that, there are additional factors that people can do based on their budget. So, you know, those kind of things are always a concern. Part of it is that everything in Vancouver is really expensive. So, land is really and really expensive and buildings are expensive. So, because everything is expensive, the marginal cost of going green is pretty small. So, if we do a passive house project in Vancouver, there might not be any premium versus another custom home. But if we really go to say suburban Oklahoma or somewhere where buildings are 100 dollars per square foot, the premium to one of our projects would be 300%. If we'd go to compare a suburban American cheap 2x4 stick frame house, yes. This is because everything we are doing here is much more expensive anyway independent of the green stuff. So you go to the suburban America and you find a cheap truck house and it's 100 dollars box a square foot. But here, it's 250 or 300 dollars per square foot.

- From which channels, from which sources (from the real estate advertisements, study results, institutional investor/ bank reports, friends, colleagues, internet, real estate purchase/or lease, architectural critics, books, academic articles, personal experience) do you update your knowledge about (sustainable) architecture?

Reading articles online, going to conferences, talking with other practitioners in the city.

- Is there a specific website or database that you follow or maybe a specific conference that you regularly check?

Just the passive house conferences. So, there is a few different ones based on the region. There is passive house northwest, passive house Canada, then North American passive house network. And then there is international passive house conference.

- To what extent could your individual efforts, explaining the potentials and benefits of sustainable/ good design, persuade investors and/ or clients to invest in sustainability or good design?

Well, we've made it central to our brand identity. So, people who come to us are open to that idea. So, that was a big part of the shift for us. It used to be back years ago before we started to this company that, what I'd do is, design a normal building, and trying to convince clients to upgrade a green building. And then we get into this conversation about return and payback period and bla bla bla, and it was always very annoying and kind of socked. When I created this company in 2009, we have branded around green product and everything, it included prefab in the name of the company, and so because of that, people automatically started to assume that what we are doing was different. And so, instead of having that conversation, we've just started to say this is how we do it. And basically, once you have a critical mass of projects, then it's quite easy. Because when the client comes to you and you say, hey ten other people have done this, ten other people thought that this was a good idea, then they think that's a good idea. It doesn't really has to do with the numbers. It just has to do with the social acceptance or something. That's different.

- Economics is barely about numbers but it's more about perception. So have you ever restricted by perceptual misunderstandings/ bias of the clients or any other professionals about your sustainable design decisions?

Yes, the green stuff is always a few percent of the cost of the project. And that's not the banks are concerned about. If you ask the ownership structures, in most cases the banks are pretty used to it. The city of Vancouver has regulations and a lot of requirements. So, they require the golder now similar to passive house, the re-zonings, so banks get use to it in the big projects. And, on the small projects, it doesn't seem really a big issue. It's a question of clients. Banks give a certain amount of money and they can allocate that budget however they want. Whether there are green features or not, the banks really don't ask that.

- What are the economic benefits/ advantages (tax cuts, incentives, image benefits, increased rents and sales prices, decreased vacancy rates, etc.) of executing a sustainable / graceful architectural project? How do these benefits affect your design? Do these benefits change with the acquisition of a certification/label?

For us, it's a branding and differentiation. So, if somebody tries to find a residential designer or builder, there is a lot of competition in Vancouver, a lot of competitors in the market. But if someone wants to google passive house Vancouver, they are much likely to find us. So, there is a clear market differentiation there. And I think we become known for that.

For the clients, the main thing is to get a building that is very comfortable and high-quality and saving energy. But because the energy is cheap, it's not really the main driver. The main thing is that you're doing a very high-quality comfortable building. That is also environmentally friendly and as a co-benefit it also saves some energy.

- What are the risks/ disadvantages of executing a sustainable/ graceful architectural project? How do those risks affect your design? Do these risks change with the acquisition of a certification/label?

The risk is the extra design work, it takes for us. We can spend a lot money and time doing design work. There are risks associated with new technology. So, dealing with new mechanical systems, that have not been proven or maintained. There is risk associated with the building inspectors. We have a lot of issues. We try to get new technology approved by local building inspectors.

- How do the Green Building Council's and the certification/label schemes affect the sustainable architecture works in general? Do they help or do they limit the architects?

It's helpful in terms of industry transformation. When you look at LEED, it doesn't necessarily always result in a great building. I mean there are some great LEED

buildings and there are some kinds of crappy LEED buildings. So, when you look at the individual cases, the results are kind of mixed, but for the industry as a whole it's been very successful, I believe, in terms of bringing around a much different range of products, building capacity amongst designers and engineers, building awareness amongst the politicians and planners. So, when you look at some of these systems, as a market transformation tool, I think they have been quite successful. When you start digging deeper.., the city of Vancouver started to looking at their climate change targets and they realized that LEED wasn't gonna get them where they really need to be, which is why they started to another system about passive houses!!! (I didn't get the exact name of the system) delivering real performance on the energy side.

Interview II

Interviewee: Architectural Design Office – Senior Architect

Place: Kuala Lumpur

Date: 16.07.2017

- What makes an architectural project environmentally and socially engaged or sustainable/ good designed?

Nothing really. The moment you built something new, it's inherently unsustainable. We forget that. The planet is an object of limited resources. And for whole the nations and lands yet to get together to use all the resources in the world. So, I don't think that architectural projects are either environmentally or in any way sustainable. Most of them, the 99% of them, are also not socially engaged. Simply because they do not take into consideration the context and specific sites. Mostly architectures talk about institutional work, residential work, transportation works. And then when they get rich and famous, they stop talking about communities. Is a single fact. Every single project taken on is a community project. Because every project has a site, which sits within an existing neighborhood and an existing community. And any new architectural project takes environmental and social sustainability into account.

- What factors (designer's will and knowledge, client expectations, economic benefits) determine the most the realization of a sustainable/ graceful architectural project?

I think it's a combination of all three (the architect's will and knowledge, the clients' expectations and economic benefits). And the moment, one of them fails, nothing sustainable architecture becomes realized. Of course, this is assuming already that we except that anything new can be made sustainable. In this case, all of them are very important.

- Does it matter for you to have a certification/label for the sustainability of the project that you designed? Why?

No, not at all. Certifications and labels are ridiculous, because they created by businessman, who certainly ave objectives for personal gain. In fact, in a lot of these certifications, you need to first provide air-conditioning to qualify for. This makes all these certifications ridiculous.

- Do you think the certifications/labeling guarantee the environmental and social sustainability of the buildings or to achieve a good design? Do you find the certifications reliable? Why?

No, of course not. And the same reasons for the third.

- Do you know how the sustainability characteristics of a building affect the financial value of that building?

I think in this world that we live in, it would affect the financial value of the building. You know, people believe in worlds that used to describe something or their investigations of a thing. Because most people are too ignorant to conduct proper study and analysis. And no one wants to here something bad. And no one wants to

say anything bad, because if they something bad they will be ignored until they bankrupt. Because we live in a world, led unfortunately by developed countries, who don't care about practical discourse. And they only have concerns about economic security. So, I do not believe that. So, in most cases, those sustainable characteristics are not sustainable.

- Does the financial valuation practice affect (the sustainability characteristics of) your design? If it does, how? Have you ever restricted by your clients or by any other professionals (like real estate appraisers, investors, bank officers, or insurers) about your (sustainable) design decisions with the worry of payback period or any other financial concern (like vacancy rates, increased sales prices/ rents)?

No, I haven't. The clients, I guess, kind of, listen to you as a professional for your advice. And if they have questions, and you have good enough reasons, then almost all of the clients are very reasonable. As long as you don't talk about technical and aesthetical details, but you talked about saving money or be easier to maintain or to function or to clean, I think they are very reasonable. I think the moment you start to talk about, like I said, details or whether how a building looks and performs, then of course you get clients telling you, you know to go to hell. Otherwise, I think clients are quite reasonable.

- Economics is barely about numbers but it's more about perception. So have you ever restricted by perceptual misunderstandings/ bias of the clients or any other professionals about your sustainable design decisions?

No, I don't really know and I don't really care, because none of them have an integrity anyway.

- What are your expectations from a sustainable/ good designed/ graceful architectural project? Do your expectations differ whether you are asked for a certification/ label or not?

I don’t have expectations simply because I don’t try to design for sustainable reasons. I just try to design with common sense. And I think the problem is, when you start giving names to something, they start to seem as a virtue, though it isn’t. If you design well, it will be sustainable. It’s about good design and common sense. And I think the use of this word ‘sustainable’ is a jog in a way. It’s a very bad word to use for architecture. It makes us believe that you can still design good buildings which are not sustainable. And it’s rubbish.

- From which channels, from which sources (from the real estate advertisements, study results, institutional investor/ bank reports, friends, colleagues, internet, real estate purchase/or lease, architectural critics, books, academic articles, personal experience) do you update your knowledge about (sustainable) architecture?

None of them at all actually. Study results, maybe, from the site – from the specific site. I look at north south east and west. Because the good sun is from the east always. And the bas sun is from the west. The south sun is very good in the northern hemisphere, and very bad in the southern hemisphere. And the north sun is very good in the southern hemisphere. So, it’s all dependent on where it’s located. That kind of study results having to do with the specificity of the place, the geography that you designed in. and with the geography, I mean everything; the climate, the wheather, longitude, latitude, people, place, society, culture, community, everything specific to the exact location of the site. So, even the rain outside is important. The rain in Indonesia has completely different impacts then the rain in Beijing, where all of the city is surrounded by canals and mass -the city of ten million. And in Indonesia, the water is terribly polluted. So even that could give insight on how a design can take place. So, the specificity I feel… And a lot of times, when you hear professionals talk architects and others, and even teachers, they never reflect the complexity of life, meaning the real estate advertisements, the institutional investors, banks, politics. All this rubbish, when they talk about complexity, it’s not about complexity. It’s all about money. And money is not complex. It’s all about greed. And it’s all rubbish. I believe, in the complexity, the human relations are made of. Actual activities of life are all about friends and people that we share a life with.

Of course, trade is important. But trade does not need to involve money. All that change, with the development of these dirty banks from the Middle East and now centered in Europe. They only believe in this ridiculous piece of paper, which means nothing of value. It just the corruption of what value really needs. So, I believe all these complexities, the world talks about, are silly constructs. That means nothing to life. So, I don't engaged any of these channels. Unfortunately, the architectural critics of the world, which is one of the channels you listed, are not doing any proper critic. This is a very dirty business: architectural network. If you don't belong to them, and criticized them, you get marginalized forever. And as a practitioner or as a teacher, you are never invited to England or in Germany or Zurich (The ETH). It's a network of lies between these three big centers, because they are the ones who over the last fifty years have led what the world believes the architectural taste. It is not. They just lie. And they let the first believe the third. It's just aesthetic. It's just make-up and fashion. Unfortunately, the best books are not written by anyone doing architecture. Most interesting books are actually written by Jewish writers. Susan Sontag, Barbara Kingsolver, John Verger, Juval Harrari. They are writing fantastic books having to do with how everything in the world is centered now on finance and business and the brand. It's all about this false system of value. So, and unfortunately, architects dont read these kind of books. So, none of us learn from these important lessons. But the best writers are the Jewish writers. They have remarkable intelligence. They explain what s wrong with it. And they especially explain what designers are doing. And I dont think this is a racist comment. This is something that unfortunately .... academic articles once again nothing to do with architecture. And unfortunately the ones writing important work, Kenneth Frampton or Jane Jacops, have no architectural background. The ones consider the cutting edge, simply because they are the ones critisize.

- Client expectations...

Well most clients are very ignorant of sustainability. So, when I engaged in a discussion and need to explain to them and they want to build something new, it's not sustainable. But we can talk about good design. Then of course, they

understand. And the clients are very different. Some clients are very intelligent. Others are stupid as architects. Some don't learn anything at all. Others are very intelligent. They learn so quickly and able to teach you how to do smt better. As human beings, it changes one to the next. Sometimes, I just made with very very stupid clients and I just turn them down. Because, it's too difficult to fight. A client, who is stupid who only understands value in terms of money.. So I do not take on these clients. The clients, who want to learn, are very interesting clients for me. And of course, I want to work with them too. Also, some clients learn quickly. One client, who wanted me to design a supermarket in Pakistan, and i said why would I want to design a supermarket in Pakistan. I don't even want to do a supermarket in Malaysia. And I said, but if you wanted to do a mosque or a town square or you wanted to have some important infrastructure for your tiny city in the middle of the ... valley, please call me. And three years later, he asked whether I wanted to do a town well, which is given the water for free. He understands he can make money but he can also give it away. To me, this is very important. So, clients are different. So Even a bad client can be good client.

- To what extent could your individual efforts, explaining the potentials and benefits of sustainable/ good design, persuade investors and/ or clients to invest in sustainability or good design?

Already I answered. It can. There is noone who is not worth time to talk to, whether he is the richest man in the world or whether it's the train sweep. I think every human being is important. You know in the way that they have an important job to do. I respect someone who cleans the drain. And does it well as much if note more than i respect a leader of a country depending on whether the jobs were done. So I think everything is important.

- Have you ever worked with big investment companies?

Yes, I've done many years ago. I worked for a big British Indian company. They are big retailers in the clothing trade. And I did a warehouse for them. And I've also done

a big commercial development. Its around 100.000 square meters for a commercial property. A big developer who does residential and commercial developments in Malaysia. And now I'm doing a fifty story building for one of the biggest land property developers in Bangkok. And you know, you can define a company also just by name. The workers of the company can be like day and night. Sometimes you have one member of the family who is running in a certain sector, who is a horrible person or maybe not a bad person but just understands the value only in relation with finance. And another member of the family, running a different vision, might have completely different values. So even the same company may act in different ways depending on who is running that particular project. So, I found that quite interesting too.

I saw your building for the clothing trade company. I saw one picture of it. And it looks like it shares the common sense it shares the principles of good design, the vernacular characteristics of Malaysia. How did you manage, succeed to persuade your investors to have such kind of a building?

Actually, you're asking a very important question. Because your question is in fact in the wrong way. Can I explain? When you talk about the vernacular, the vernacular sensibility, you're not actually talking about sensibilities. You only talk about aesthetics, how it looks. Correct? Yes ....

But by enlarge, whenever we study buildings as architects, teachers or students, we talk about sensibility, climate and all of these, but usually it all boils down to how it looks. And this is the big think that I fight a lot, because architecture is about two things. Its about design and styling. And unfortunately whenever we talk about vernacular and sensibility, we usually come close to styling. And styling is very easy actually. Everyone likes it you know. But unfortunately visual content is very difficult to get there. This is smt I found very difficult to talk with clients about. To tell them: look! You need to provide just as wonderful space for the people who clean your building as the people who rent the space in your buildings. Because the biggest users of your buildings are not the ones who own it, they are the ones who clean

and maintain it. They are there from six o'clock in the evening to eight o'clock next morning. We don2t realize this. And in Malaysia and a lot of the developing countries, I'm sure the biggest users of your house are your cleaners your maids. And we never think about this. It's a ridiculous world we live in. I try to talk about these issues when I talk about vernacular sensibilities. I don't care so much how a building looks although it's very important also. And what you've identified as a vernacular sensibility in a relation to aesthetic taste is not a vernacular sensibility in Malaysia. It's only become that way, because of the work that I've started to do almost twenty years ago. And a lot of times, local people like to feel they belong to a trend. So they do the same kind of raw brick and concrete. And everything begins to look the same. To me, it does not describe the ethos of a sensibility. Its not design. It's only designing. As far as that is concern, I strongly fight against it. I try to tell clients that all buildings do not need to look like incomplete. But they save money when they don't need to put these expensive furnishes on the building. So, I don't try to make all my buildings look like that because of their look. This is because I'm trying to save money for other important things.

- Is the market ready and willing to radical, pioneering, experimental and pluralistic approaches for sustainable/ graceful building design? Why? If you design something very visionary, unusual and unique, can you built it?

I believe yes of course they are. Architects are not that intelligent to say what clients want or not. In the entire planet, we have gotten everything that we wanted for the last 50 years. But we didn't ask the single question what we really need. I believe if we focus more on necessities rather than luxuries, we can pioneer an experiment with all kinds of things, that will really change the way we understand what design means. The trouble is right now the market is ready to this pioneering what they think a pioneering and experimental project, which only look pioneering and experimental. Its only aesthetic that look special. 99% of global architecture works in this way. It's about styling and branding, not different than an iphone or gucci.

- What are the economic benefits/ advantages (tax cuts, incentives, image benefits, increased rents and sales prices, decreased vacancy rates, etc.) of executing a sustainable / graceful architectural project? How do these benefits affect your design? Do these benefits change with the acquisition of a certification/label?

Well, there are lots of economic benefits. Of course, the governments all around the world are doing business. They don't care about people. They only interest in making money on dirty business that run the country really. So of course there are lots of economic benefits that really don't mean a thing. They only have a feedback for the richest people, who already participated in the same lies. The actual meaning has no value at all. And of course, these benefits change with the acquisition of a certificate. You know, they are all the part of the same lie. The lie helps another lie.

- What are the risks/ disadvantages of executing a sustainable/ graceful architectural project? How do those risks affect your design? Do these risks change with the acquisition of a certification/label?

There are no risks. If you do a coating whats done before, you will succeed, get the certification and be very happy. I think the risk of executing a truly good project is very high. Because a really good project will take the risk having to do with a truly pioneering and experimental work. It's difficult to explain without getting specific. But a good example is the modern high-rise. There are many projects now, especially from Singapur, very big firm called WOHA, one of the most published architectural firms in the world right now. And they are awarded with the work with a ventilation system. None of the juries actually have studied the work. And the truth, the only parts of those buildings which are cross-ventilated, which exhibits cross-ventilation, are the public areas, which is not different than from very cheap housing development board apartments in singapur. And 5% of units, which are the penthouses. And even in these units, you have to open the master bedroom window, master bedroom door, master bedroom toilet door, and the master bathroom toilet windows in order for crossventilation to happen. Because cross ventilation can only be affected on opposite walls. So, a lot of words used to

describe the works are not true. And the world is now uses the word 'natural ventilation' like it is a virtue. You can not even feed a dog in a space without crossventilation. I think to do a building, which is truly cross-ventilated, is very very difficult. So if your question has written for most profound level, yes the risks are incredibly high. And, very few of those risks would ever… And very few people study these experimental, pioneering designs. A lot of these pioneering buildings fail, because it's so difficult.

- How do the Green Building Council's and the certification/label schemes affect the sustainable architecture works in general? Do they help or do they limit the architects?

Already answered. Then don't help at all. They don't even limit the architects, because it's all rubbish.

- You say that small projects are about the possibility of context and subverting the dominant paradigm. I have the question. You orient the direction of your works towards the small projects. And what was wrong with the big projects and what should be done to accomplish the grace of architecture in big projects? Or is there smt that could be done with the big projects?

I don't think you've read my entire commentary section in my site. Because the name of my company "small projects" doesn't refer to the scale or the size of what I do. It refers to process of thinking, which is about an intimacy of how to make big ideas/ things radical. It's about intimate way of thinking. Thinking about the junctions, thinking about the small. Because nothing makes any sense when you look at large elements. Everything only can be understood when you understand how big things meet. It's all about junctions, so about connections. So small projects was never meant to reference size or scale of projects I want to take on. It's only the way of thinking, of reducing everything to a small scale. It's a radical way of making big things look special.

- I asked this question, because there is a trend in the world like big countries, big capital have the big projects. We see the trends Rem Koolhaas, the generic city, the big works. There are also some architects making advertisement about that. And I found this really very dangerous, because it's lacking in detail and it's very generic. And this can kill the proper way of working on architecture. So, maybe I can ask what are your suggestions to stop this trend to stop this action?

Well, I feel architects like Bjarke Ingels, like the companies, that started in a very good way, fall when they became famous. They've got to go back to their roots. They've got to learn how to say no. They've got to stop this crazy obsession with branding. Let me give an example. If I ask you to make a choice. You can either have every single apple device for free till you die or would you rather pay money in order to have access to the world wide web (the internet)? It's a stupid question, right? But can you tell me the name of the person who invented the internet?

- No.

Exactly. 9 out of 10 people don't even know how this person looks like. We're living in a world today where people make money and stuff have value. And the guys who makes a real difference cannot be even recognized. Tim Berners-lee has invented the internet and gave this invention to the world for free. And this is the world we live in. So, Bjarke Ingels, Rem Koolhaas, Daniel Liebeskind they are all taking after the same mode of Steve Jobs. Developers are idiots by birth. But architects shouldn't be. We owe the world more integrity. We have the ability to say no. But we don't, because fame is more important than integrity.

Interview III

Interviewee: Architectural Design Office – Senior Architect

Place: Quito

Date: 20.07.2017

-What makes an architectural project environmentally and socially engaged, good designed, sustainable for you?

It's very difficult to generalize the answer of this question. It's very dangerous. You know, ambition to make a recipe out of what conditions are good or bad. Because in our experience, the reality is very complex. And simplifying it, maybe, can lead you a wrong answer. So, going back to your question, what we tried to do to approach to any design or when we are working with communities or these kind of problems is depends on the local reality of what could be our role, or in what we are useful there. Architecture is not a tool very efficient for the problems these communities usually have. I make myself clear here, because we think that architecture is the last layer of these conflicts, usually, these communities face. And, because of this complex reality, we always try to work with other professionals. So that, they can support us about what we are not able to answer. We are good designers and we try to optimize the resources we find. All the resources; the people, the materials.. or all that we need to do architecture. But, it isn't always so simple as that when you face these realities that we were involved. So, one important thing that I can say is that maybe we like in our projects is long term approach to the realities and also to hear and to involve the people that you are working for in the design. Because they will have a lot understanding of the reality that we as architects didn't.

-What factors determine the most the realization of a graceful architectural project?

I think maybe the understanding between the architects and the people for whom the design is made. When there is something more than monetary transaction, when the architecture is more than monetary transaction, in the merchandising way, when you have a real understanding of a real project, you will achieve the grace that you are talking.

-Does it matter for you to have a certification for the projects that you designed?

We don’t trust too much the certifications, although we don’t know the whole range of certifications. But sometimes they seem more like a part of a capitalist merchandising system, something that you need to enter some value in the economic system. So, we don’t trust it too much. Anyhow, we don’t know how to replace these addings that they are try to impose in the business system. So, it’s kind of a hard thing to say that it’s good or not good. We don’t know.

-Do you know how the sustainability characteristics or the design of a building affect the financial value of that building?

We haven’t been involved in these financial things that you’re talking about. We have designed some institutional buildings – some schools for the government. But everyone was concerned about the social value and the economics was not too much concerned. Because here specifically in Quito, it is something more or less common in Latin America, we have, when the government pays some cost of the electricity, for example, grant/ aid the electricity, the water and some fuels. So, the new technologies, like solar panels for generating electricity or smt like that, is not very common. And it’s usually more expensive than the energy that the government provides. This is for sustainable energy. But for the construction, technologies, the materials with low carbon footprint, that is not a concern for the people who build in big scales here. Because it isn’t a completely industrialized development. We haven’t suffer so much directly of the problems of the global warming and contamination issues, or we didn’t assimilate it close to us. So, it doesn’t matter for the big companies building in the city.

-From which channels do you update your knowledge about architecture? You use very site specific local materials and local construction techniques. From which sources do you get this information?

If you checked our design, you should probably have seen that we use a lot of techniques and technologies. Because Equator is a small country, but it has a lot of different climate and ecosystems in the same region. We have the Andean Region,

where the vernacular architecture is more about the earth. We have the coast of the Pacific Ocean, where the vernacular architecture use bamboo or wood, and so on, so on. All of these techniques are not well documented in the papers in the investigations. We are involved with universities but our main knowledge, the main way we learn these techniques is that. We have found small circles of researchers of people interested in vernacular architecture and vernacular techniques that connected through a wide net. And it has some cells working here in Quito in some places of Latin America. So, working with them in collaboration with your project is the main way we have. For example, we are connected with some engineers that …. Is a net based in France but it has a net across the world for bamboo issues. We work with other engineers in the university of …… wayakeyo???? We work with some specialists that the most known for the technology. There are some soft categories, mainly about, what we have found, in informal communities that they have passes this knowledge through generations. That's the way they built. There is not much theory about a lot of these techniques. For example, just to give you an idea, when you work with wood or bamboo, a long beam of bamboo, like 6 meters of bamboo, it costs you 2 dollars. But, the way one bamboo is connected to other bamboo, is a joint that can cost you 200 dollars. So, obviously, this technology wasn't available in ancient times. So, people developed a way for joining these bamboos with leather. But, with the leather, you have to manage the leather in a certain way, in order to keep this structural value. You know some procedures of the industrialized leather. They are dehydrated. They took the water out of the leather. But you have to manage in a certain way in order to keep their structural properties. And when we found these techniques, we didn't find any books or any investigations or any theory about it. So, the main way we learn was the community and the people that has used these structural joint for a lot of time. They said us how to do it. That's, for example, one way we encounter. There is a lot of information about vernacular architecture, which is not academic. It's out of the academic world.

-Do you think the current system recognizes the vernacular architecture, or the value of the vernacular architecture? Do you think there is a financial return of all these efforts?

No, of course not. There is not financial return. I think the biggest problem is that it has a very big cultural recognition of this knowledge. So, as I told you before, we have encounter small groups of people, who are very interested in. And it has a lot of knowledge. But they are not visible in the main discussion of the discipline, of the techniques. These people have.. The systems are used until now, because they are very logical. And in some cases, they are more accessible than money. For example, a community that based in the…, it is easier for them to build with what they have around them than to have a work and earn a salary to buy materials to build their homes. It's very direct the way they saw the problems. Because it's easier than money and it's more logical to conserve the systems. I think one of the things that make our studio visible in the world is that we recover some of these constructions and some of these techniques and put a design value in these construction techniques. Because, architecture, design is not very common to these vernacular techniques. They have some interest in and very interesting and clever structural solutions and the way they work are more sustainable than any LEED certification or any sustainable certification. But, the way they design, they usually don't put a lot of thinking on the cultural value of the design. And the cultural benefits of designing these structures. But I think that's one of the things we achieved to manage.

-Who are your clients? And what are their expectations from you about your design?

We have wide range of clients. It's more or less… someone wants to do something that doesn't fit in the standards, for something that there isn't an economic offer in the standard market service. Usually they come to us. They have some projects that has strange particularities or characteristics or if they have projects that they are involved with communities or groups that are organized, and doesn't have a lot of access to money. But, we also have clients such as the contemporary art center in Quito or the Carneval??? Museum in USA, the cultural entities in Europe that ask for our designs and for our criteria. Also, the universities are also another client for us. We give a lot of lectures in a lot of universities and we give some classes in a lot of universities. But what is our part? I think we offer these space to think about

fundamentals of the space of the architecture. We give space for think about it. But we don't build entirely our ideas. We combine the expectations the desires of the family, of the people, of the community, of the certain group of people, and with these informations we understand the possibilities in the space. As we develop our practice, we are 100% sure that dogmas are not usually constructive for us. We try to be zero prejudice. We don't like prejudice. So, we approach each project to see what the project really needs, what the resources are, what can we think with a community there. So, we are interested in earth construction, but we are not married with earth. We are interested in these vernacular technologies, but sometimes we don't use vernacular techniques, because they are not corresponding or coherent with the project. It depends. We try to analyse each situation and we propose.

-But, it's always depending on your analysis. Or client decides?

It's a combined analysis. Of course, we have a very important part in the analysis. We work with the clients not in a commercial strict way. We work with the clients as if they were our partners. So, we have a first meeting. We say, for any client, who came to our studio, doesn't matter whether it's a university or a family, or a community, or a museum, we have a conversation we expose the way we think about the work. We expose what our interests are. And they expose theirs. And if we have a match in our thinking about everything, or more or less about the work, then we work together. But if we don't, it is important not to waste anyone's time.

-Is the market ready and willing to radical, pioneering, experimental and pluralistic approaches for graceful building design? If you design something very visionary and unique, can you built it?

Everything we have built until now, we think that, it's not usual and common. I don't know whether it is visionary but it's not common. So, we have found a way to built all these dreams, all this kind of architecture that goes against this new God, which is the money. That goes against this hunger. That goes another way of seeing the

world, seeing the time, seeing the life, and seeing the environment. Everything that we have built goes in that direction. We never take a client, that doesn't want to do some radical proposal, or something different than what the world impose. So, I think it's very possible, even Equator is not the land of opportunities. It has a lot of difficulties that are common in the developing countries. But we have manage to do so, because we think that even if the capitalism has these very strong cultural force like ambitious behaviors like greed… Now you are not called greedy, you are called successful, if you put a lot of money in your account. You are not called solidarist, if you share what you have. You are called stupid. Even if the capitalists have the cultural power to propose these lifestyles, this hunger for consumption and everything, there is still a lot of people that they think it's not the right way to live. So, this year, it's our tenth year birthday. This year we accomplish our ten year of our existence. And we have into in things outside of this system. And we are working with a lot of people that help us to accomplish everything that we did. And we were in some mainstream platforms such as the Venice Biennale, in which we were very concern to do not simplify the values and the way we see the world. Because it turns to some kind of fashion or it is very dangerous to superficialize a lot of our work.

-And maybe they can copy your work? It can become famous, and it can become trendy, and then a lot of copy of your work can happen. Do you think is there a danger like that?

If someone wants to copy our work truly, we will be very happy. In fact, none of our things have copyrights or licenses to reproduce. Everything is free. If you want to copy something, we even will help you to do it. But, if someone superficializes the work and make a bad copy.. For example, we saw in Argentina in Christmas time a Christmas tree, made out of plastic bottles. But the plastic bottles were new, and they did it with that because of this fashion of recycling. And this fashion of furniture making, now they sell it to you, as if they were old. Here is a song of a popular singer, stores that sell things that are (Spanish…) but it's smt like that: you buy something new that looks like smt old. It's all about the contemporary system that

we live in. But, our daily lifes motivate us. And make us think that everything is not as bad as it seems.

-What are the risks of executing these kind of projects?

When you saw something that is not common, that is not the usual thing that everyone does, you will be forced to do a lot of things that are not conventional and new. When you are in the situation, when you do things are not conventional and new, you tend to do a lot of mistakes. Because you don't know what are you facing. You don't have experience and you haven't learned from anyone before all these things. So, you tend to do a lot of mistakes. And, so when you do a mistake, you demoralize. So, you have to be very strong to learn from those mistakes and start from zero again. You have to think for 20 ideas and 19 of them were dying. We tried to do 20 projects, but we only achieved 1 successful. So, you have to be comfortable with to be a loser 19 times.

Another risk is that you have to adapt the way of life to these environments you are involved in. We never achieved this American lifestyle of a family, a house, a car.. And all those things. We live a simple life. But, because we think it's ethical to what we do. But when you are in a lot of these glamorous events, a lot of people that surround you have this American successfully life, you are still living like in this simple life, you don't have to be weak in front of them. So, that's another risk. You have to arrange your ideas to know that what you have chosen is what you have. That's another thing.

And the main risk is that, what we learn very painfully, is that, you can't be in this business to help people. People have to be able to help themselves. You have some tools that will collaborate. But it's not my problem, my project, it's their project. And they have to be strong enough in any situation that they encounter. Because if you do not collaborate together, if they are not good in to put the same energy that you are willing to put, like in these NGO's that came to Africa and offer 20 houses. They give a way 20 houses to poor people.. Maybe only in the selection process of who get the house and who doesn't get the house, you probably will create a big problem about it. Because you don't have 20.000 houses for the people that need houses.

You have 20. Ok, you will put your help there. But maybe if you select the 20, that will get the house, the 21 will be jealous and there will be conflicts. Maybe that will also create a problem. So, it's not about helping, we think, it's about understanding who is in front of you. Understanding your place in the world and work together with people. Take their suggestions seriously. Take their ideas seriously. Now, everyone does participatory projects. Everything is participation. And we don't like this word anymore, because it simplifies and superficialize the job of taking decisions together with the people you are working with.

-How do you call this participatory process? And what do you prefer instead of participation?

We are not theorists. We don't come from the academe. So, we don't put names to things. We don't know how to call it. But, the way you understand people, you include these people in your decisions, and you take seriously their involvement in the decisions. We don't know how to call it. But we just don't like participation, because we saw participatory process that superficialize the participation idea.

-How do these NGO's, GBC's, or sustainability organizations affect the sustainable architecture works in general? Do they help or do they limit the architects in their designs?

We don't know. If they are good or bad. If they help or do not. We don't know. It is very difficult panorama. I guess some of them help, and some of them don't. You can't judge everyone in the same… It's important that people, when you check a project, or you saw something that someone did, and it seems not good enough with a first view of the work, or a superficial view of the work. Maybe in these days you will have to research, who fund, or who put the money for the project, where the project is, in what way everyone was involved in the project, what happened with the project after they took the photos of the new building, what will happen to the project in a few years. You won't be able to judge everything, but single view in a

website. Maybe you have to research more these days to see what they did, and try to understand what did they right and what did they wrong.

Interview IV

Interviewee: Real Estate Appraiser

Place: Istanbul

Date: 25.07.2017

2008 yılında kurulan Eva Gayrimenkul bünyesinde 3 ana departman bulunduruyor. Bunlardan biri değerleme departmanı, diğeri bankalarla çalışan departman ve sonuncusu da teknik departman. Değerleme departmanı otel, marina gibi kompleks yapıların fizibilite ve kullanım çalışmalarıyla ilgili çalışıyor. Bankalara/ yatırımcıya rapor hazırlıyor. İkinci departman, Bankaların Kredi Değerlemelerine yönelik değerleme hizmeti veriyor. Teknik departman da bankalar adına müşteriyi kontrol ediyor ve onaylıyor. İnşaata harcandığı söylenen para gerçekten oraya gidiyor mu ona bakıyor ve her ay rapor düzenliyor.

Değerleme, Türkiye'de herkesin aşina olduğu bir kavram değil. Fikir geliştirirken yatırımcıya yardım ediliyor. Yatırımcının sahip olduğu ya da almayı düşündüğü arsa üzerinde hangi gayrimenkul projesinin geliştirileceği ile ilgili danışmanlık yapılıyor. Karlılık araştırması yapılıyor. İnşaa ettiğim alanın maaliyeti nasıl olur. En çok etkileyen konulardan biri maaliyet konusu ancak sadece maaliyet de değil. Gayrimenkul projesi en az 10 yıllık bir yatırım. Eskiden Türkiye' de sadece yap sat stratejisi vardı. Ancak şimdi öyle değil. Geliştirilen gayrimenkul'ün 10 yıl boyunca getireceği gelir hesaplanıyor ve ona gore proje geliştiriliyor. Yani proje ne kadara mal olacak ve 10 yılda getirisi ne olacak. Bu noktada yeşil bina sertifikaları, sertifikanın tipine gore inşaat maaliyetini %10-%25 arası arttıran şeyler. Bir yandan da, binanın kira getirisini de arttırıyorlar. Örneğin, binanın metrekaresi 45 dolara kiralanırken, 50 dolara kiralanıyor. Ancak, sertifikalar hep iyi lokasyondaki binalara alınıyor. Birim satış/ kiralama fiyatın düşük olduğu lokasyonlarda sertifika almak mantıksız. Tuzla'da inşa edilen bir projeye mesela sertifika almak mantıksız.

Türkiye'ye yeşil bina sertifikaları yabancı yatırımcılarla beraber geldi. Türk yatırımcılar da, yabancı yatırımcıların geliştirdiği projelerden görerek sertifika almaya başladı. Eksik kalmamak gayesiyle sertifikalara yatırım yapmaya başladı.

Türkiye'de de GYODER in yılda 4 defa yayınladığı Türkiye Gayrimenkul Sektörü raporları var. Ayrıca merkez bankası da konut fiyat endeksi raporu yayınlıyor. Genel verileri devlet yayınlıyor ama özel verileri gayrimenkul değerleme şirketleri kendileri takip ediyor. İnşaat halindeki binalar, mevcut durumdaki binalar, ne kadar kiralanabilir alan var sürekli takip ediyorlarmış. Ve EVA Gayrimenkul olarak yatırımcılara sattıkları özel raporlar hazırlıyorlarmış. Yine bu raporlarda İstanbul'daki markalı konutlar, bölgeler bazında değer artışları, bina stoğunun nasıl değiştiği, ile ilgili bilgiler yer alıyormuş. Topladıkları bu bilgileri daha sonra, müşteriye özel hazırladıkları, highest and best use raporlarında da kullanıyorlarmış. Yani bir arsa üzerinde ne geliştirsek en karlı olur diye araştırma yaparken bu bilgilerden yararlanıyorlarmış. Ve mal sahibine, ya da geliştirme şirketine oraya hangi fonksiyonun gideceği ile ilgili öneride bulunuyorlarmış.

Gayrimenkul değerleme, 3 ana yöntem kullanılarak yapılıyor. Ayrıca, proje geliştirilecek bölgenin makro ve mikro ölçekte demografik, ekonomik vb. analizleri yapılıyor. Mevcut gayrimenkullerin mülkiyet durumu, imar durumu ruhsat aldığı tarihteki durumuyla şu anki durumu arasındaki farklar belirleniyor. Mevcut binanın özellikleri çalışılıp raporlandırılıyor. Ve son olarak da bir analiz ve değerleme raporu oluşturuluyor.

Sektörde kullanılan 3 farklı değer tanımı var. İlki piyasa değeri. Bir gayrimenkul, 6-12 ay arasında piyasaya konduğunda, eğer satılırsa, o değer o gayrimenkulün piyasa değeri oluyor. Eğer 0-3 ay arası satış yapılırsa, o değer o gayrimenkulün zorunlu likiditasyon değeri oluyor. Bir de bankaların kullandığı, ikisinin arasındaki değer var. O da gayrimenkul 3-6 ay arasında satıldığındaki değer. Bunun adı da düzenli likitidasyon değeri.

Gayrimenkul değerleme de 3 temel yaklaşım var. ilk yaklaşım emsal karşılaştırma yaklaşımı. Piyasada bol bulunan gayrimenkullerin değerlemesinde kullanılan bir yaklaşım. Daha çok konutların, dükkanların ve ofislerin değerlemesinde kullanılıyor. Yaş, lokasyon, büyüklük açısından bir gayrimenkulün benzerlerinin kullanıldığı bir yaklaşım. Amerika'da piyasa listeleri oluyor. Kim hangi gayrimenkulü ne kadara almış şeffaf ve erişilebilir. Ancak Türkiye'de öyle değil. Türkiye'de günlerce emlakçılarla konuşularak veri toplanıyor.

İkinci yaklaşım maliyet yaklaşımı. Daha çok piyasada bir benzeri olmayan yapıların değerlemesinde kullanılıyor. Örneğin, bir fabrikanın, bir caminin ya da dağbaşında etrafında bir benzeri olmayan bir evin değerlemesinde kullanılıyor. Arsanın maliyeti ve inşaat maliyeti hesaplanıyor. Binanın sınıfına gore, Çevre ve Şehircilik Bakanlığı'nın yayınladığı birim maaliyet fiyatları var. Ancak yine de, hangi binanın ne kadara inşa edildiği sector içerisindeki çalışma arkadaşlarından duyup öğreniyorlarmış.

Üçüncü ve en önemli yaklaşım da gelir kapitilizasyonu yaklaşımı, çünkü bir gayrimenkul yarattığı gelirle değerli. Her tipolojiden yapı yani; avm, akaryakıt istasyonu, ofis, konut, vb.; kira geliri getirebilir. En detaylı yaklaşım bu. Gayrimenkulün geçmiş yıllardaki performansına bakarak geleceği tahmin etmeye çalışıyoruz. Muhasebe tablolarını, yani gelir giderleri, inceliyoruz. Bütün piyasa dinamiklerini bilmek lazım. Örneğin 2 sene içinde sektörün toparlanacağı kabulünü yapmak lazım. Bu yöntemle değerleme yaparken, 10. Yılın sonunda gayrimenkulü satmışım gibi düşünerek yaklaşıyorum. Artık değer, 10. Yılın sonundaki satış değeri oluyor. Paranın zamansal değerini korumak için excel tablosunda bir indirgeme oranı kullanılıyor. 10 yıl sonra 10 milyona satılacak bir gayrimenkulün, bugünkü değeri 7 milyon gibi örneğin. Bu indirgeme oranı, risksiz getiri oranı ve risk piriminin toplamından oluşuyor. Örneğin paramı devlet tahviline yatırsam, risksiz getiri oranı (risk free rate of return) %5.46, risk pirimi (risk premium) de %4.54 ise indirgeme oranım %10 oluyor. Projenin yatırım riski arttıkça, bugünkü değerim düşüyor. Net bugünkü değer (Net present value) -bir yatırımın yatırım süresi boyunca getirdiği gelirin bugüne indirgenmesi sonucu elde edilen değeridir. İç verim oranı (internal rate of return)- karlılık oranı da denir, bir projenin net nakit akışlarının mevcut

değerini, sermaye yatırımının mevcut değeriyle eşitleyen orandır. Potansiyel yatırımcılar için temel gösterge niteliğindedir. Ve kapitilizasyon oranı -capitalization rate (yield) hesaplanır – net işletme gelirini toplam mülkün değerine dönüştürmek için kullanılan bir katsayıdır.

Gayrimenkul değerlemenin yanında, yatırımcıya değerlemesini yaptıkları yapının yeri, konumu, imar durumu, teknik özellikleri ile ilgili de kapsamlı bir rapor hazırlıyorlarmış.

Daha sonra en etkin ve verimli kullanım analizi (highest and best use analysis) hazırlanıyormuş. Senede yaklaşık 90 tane böyle analiz yapıyorlarmış. Yatırımcı, sahip olduğu veya almayı düşündüğü arsa üzerinde ne inşa ettirebileceğine dair danışmanlık alıyormuş. Değere etki eden olumlu ve olumsuz faktörler belirleniyormuş. SWOT Analysis yapılıyormuş. Arsanın üzerindeki sınırlayıcı özelllikler, imar durumu, çevresindeki raylı sistemler, 5 yıl sonraki ulaşım yolları, topografik yapısı, arsa emsalleri, vb. herşeyin kapsamlı bir şekilde araştırılıp raporlaması yapılıyormuş. Arsa üzerinde konut, otel veya bir başka tipolojide bina geliştirilmesine yönelik farklı senaryolar üzerinden, her bir tipoloji için farklı bilgiler toplanıyormuş. Örneğin bir nitelikli konut geliştirilmesi senaryosu için, fiyat kalite ve lokasyon açısından benzeyen projeler inceleniyormuş. 1 günde ne kadar sattığı, 6 ayda ne kadar sattığı benzer projelerin raporlanıyormuş. Bir otel geliştirilmesi senaryosu için, oda fiyatları, tam pansiyon veya yarım pansiyon için, bütün varyasyonlar belirlenip, rakamsal değerlere indirgeniyormuş.

EVA GIS diye bir yazılım geliştirmişler. AVM analizi için. AVM lere en çok ilk 10 dklık araç mesafesinde oturanlar geliyormuş. Yazılım, arsanın haritadaki yerine nokta atılmasıyla, oraya ilk 10, 20 ve 30 dklık mesafelerde oturanların sayısını ve özelliklerini çıkarmaya yardım ediyormuş. TUİK verilerini harita üzerinde işliyorlarmış. Çevresinde daha çok genç nüfus mu var, yaşlı nüfus mu var, üniversite mezunu oranı türkiye ortalamasından (%11) az mı fazla mı, gelir durumları nedir işleniyormuş. Hanenin kirasına ulaşıldığında, hane halkının toplam gelirinin ort. %25 ini kiraya harcadığı kabülünden gelir durumuyla ilgili orada yaşayanların ortalama bir tahmin

yapıyorlarmış. Avrupa'da bir Kabul varmış. Buna gore, 1000 kişi başına düşen kiralanabilir alan 250 m2 den yüksekse, orada AVM ye ihtiyaç yok deniyormuş. Türkiye'de bu alan şu anda 150m2 civarıymış.

Belirlenen örneğin 2 farklı alternative için, alternative 1: ofis+dükkan, alternative 2: rezidans+dükkan, tüm maliyetler (alt yapı, üst yapı), riskler (zemin sıvılaşması vb.), nakit akış tablosı, net bugünkü değer, iç verim oranı(yatırımcının koyduğu parayla getirisi) hesaplanıyormuş. Ve sonunda da bir duyarlılık analizi yapılıyormuş. Bu analizde %9.5, %10 ve %10.5 indirgeme oranlarıyla projenin net bugünkü değeri hesaplanıyormuş. Eğer bu değer arsanın net bugünkü değerinden az çıkarsa, projenin yapılmaması kararı çıkıyormuş.

En etkin ve verimli kullanım analizi raporu, arsanın en etkin ve verimli kullanımı demek oluyor. Bu yüzden, yeşil bina sertifikaları da iyi lokasyondaki binalara alınabilir ancak dendi.

	Kira	Aidat (fatura giderleri)	Toplam aylık gider
Sertifikalı	9	2	11
Sertifikasız	8	3	11

Mal sahibi alacağı kiraya bakarmış ve sertifikalı bir projeyle daha fazla kira alacağını bilirmiş. Kiracı da daha kaliteli bir yapıda, toplam aylık giderleri değişmeden oturacağı için sertifikalı yapıyı daha çok tercih edermiş. Ancak kira ortalaması düşük olan bir muhitte, böyle bir artışı kiraya yansıtmak çok mümkün olmayacağından, sertifika alımları fizibıl olmazmış. Üstelik kira ortalaması düşük olan muhitlerde bir de, inşaat maaliyeti daha düşük yapılar inşa edildiğinden, sertifika almak da inşaat maaliyetini yüzde olarak daha çok arttıracağından, gelir seviyesi daha düşük olan muhitlerde sertifika almak çok mantıksız olurmuş.

Amerika'da 20-30 yıllık konut kredileri veriliyormuş. Bir de 2008 krizinin esas nedeni 100 birim fiyatlık eve 120 birim fiyatlık kredi verilmesi olmuş. Türkiye'de konut kredileri 5-10 yıllık veriliyormuş. Ve alıcı, belli bir miktarını nakit ödedikten sonra, konutun değerinin daha altında bir kredi çekiyormuş. Buyüzden konutun değerini daha da fazla gösterme yarışı yokmuş.

Türkiye'deki başlıca sorun olarak, tapuda daire olarak geçen hanelerin, ofis olarak kullanılmasını görüyorlar. İlk başta nitelik problemini ortadan kaldırmak gerekiyormuş. Mevcutta çok boş ofis stoğu varmış. Daireler ofis olarak kullanıldığı için. Konut binalarında, daha az maliyetle oturabildiği için, kalitesiz olsa da insanlar ofislerini c sınıfı bu tip binalarda kuruyorlarmış. İstanbul'da Levent bölgesindeki ofis yapılarının sertifikalı olması, bu anlamda, hiçbir şeyi değiştirmezmiş.

Son olarak, İstanbul için yeni bir kriz kapıdaymış. Son 5 yılda İstanbul'da konut fiyatları ort. %17 artmışken, son yıl %11 artmış. Oysa bu son yıl ki türkiye ortalaması %13 imiş. İlk defa İstanbul'daki artık Türkiye ortalamasının altında kalmış.

Interview V

Interviewee: Istanbul Based International Construction Company – Architectural Design Team Leader
Place: Istanbul
Date: 26.07.17

ENKA genellikle yurtdışında faaliyet gösteren bir inşaat şirketi. En çok da Rusya Moskova'da proje yapılıyor. Rusya'da SNIP (construction codes and regulations) diye geçen, ülkenin kendi inşaat kodu var. Bir de bütün malzemelerde ve uygulamalarda (hizmetlerde) uymak zorunda oldukları GOST (national standards) ulusal standartlar var.

ENKA, Amerikan hükümetine dünyanın değişik yerlerinde konsolosluk projeleri yapıyor. Bunun için şirket içinde bir konsolosluk grubu var. Rusya'da, Uzak Asya'da, Afrika'da, Avrupa'da konsolosluk projeleri inşa ediyorlar.

Umman'ın başkenti Muskat'ta, bir havalimanı projesi yapmışlar. Bu proje İngiliz standartlarına gore (BS EN ----, EN ISI ------)tasarlanmış. Bir projenin hangi standartlara gore tasarlanacağına, o projenin işvereni karar veriyor. Umman, Arap Yarımadasında olduğu için, orda da inşaat sektörü ingilizlerin kontrolünde olduğu için, havalimanı projesinde, BS (british standards) uygulanmış.

Rusya'da işverenin söylemesine gerek kalmıyormuş. Direkt, Rusya'nın kendi ulusal standartları olan SNIP ve GOST uygulanıyormuş.

Katar'da bir stadium projesi için teklif verilmiş. Bu teklif hazırlanırken, Katar hükümetinin belirlediği bir yeşil sertifikasyon sistemine gore proje hazırlanmış ve ona gore teklif verilmiş. Bu sistemin adı GSAS (Global Sustainability Assessment System). Katar'da LEED ya da BREEAM kullanmıyorlarmış. Temelde LEED'e çok benziyormuş. Katar'da üç farklı stadyum projesi için teklif verilmiş. İlkini, Çinli bir firma almış. İkincisini Tekfen almış. Üçüncüsü için de süreç hala devam ediyormuş. Bu teklifleri veren bir de teklif grubu varmış. Onlar da kendi hazırlıklarını yaparken mimari tasarım ekibinden destek alıyorlarmış. Katar Stadyumlarında bir de, spor tesisleriyle ilgili güvenlik kurallarını tanımlayan 130 sayfalık "Green Guide" adında bir döküman varmış. Güvenlik ile ilgili, alınması gereken önlemleri tanımlayan, toplanma ve kaçış alanları vb. standartlarını belirleyen bir döküman.

Bir proje için ihaleye çıkılacağında, yani o projeye bir teklif verileceğinde, bu dökümanlar daha once de belirttiğim gibi, teklif grubu tarafından, mimari proje ekibinden de destek alınarak hazırlanıyor. Teklif hazırlarken, işverenden gelen bir şartname oluyor. İşveren gereklilikleri, işveren temsilcisi tarafından, ki Arap Yarımadası'nda bu temsilci ya Designer Firma ya da Proje Yönetim Firması oluyor, hazırlanıyor. İhaleye çıkılacak dökümanları hazırlıyorlar ve gönderiyorlar. Kontrakt ekine bu kriterleri koyuyorlar. Ve o işe fiyat verecek her grup, o kriterlere gore fiyat

vermek zorunda oluyor. Ellerinde, ön çalşması yapılmış bir preliminary design oluyor. İşverenin temsilcisi (employers representative) ihale sürecini takip ediyor. İşverenle, ihaleye girenler arasında teknik bir uzman oluyor. O uzman, ihaleye girenlerin sorularını cevaplıyor.

Sertifikasyonlar, daha yüksek maliyete sebep oluyor, çünkü her malzemeyi kullanamıyorsunuz. Örneğin, LEED sertifikasyonu alabilmek için, kullanmanız gereken farklı bir malzeme yelpazesi var.

Yaklaşık, 3 ay once, ENKA'nın talebiyle, ERKE- Sürdürülebilir Bina Tasarım Şirketi- ENKA'da bir sertifika alım süreciyle ilgili eğitim vermiş. Önümüzdeki dönemde, şirketteki birkaç çalışan LEED AP olacakmış. Yine bundan sonra nasıl bir strateji izleyecekleri ile ilgili olarak görüşme halindelermiş. Bunun şirket için faydalı olacağını düşünüyorlar. Türkiye'de yesilmalzemeler.com.tr diye bir site var. Vitrifiye ve armatürlerden, kaplamalara, kaba yapı malzemelerinden, çatı ve cephe sistemlerine kadar her türlü inşaat malzemesinin bulunduğu bir websitesi.

Türkiye'de yerleşik ISO 14025 Çevresel Ürün Beyanları (EPD) (Environmental Product Declarations) EPD sertifikalı malzemeler, maliyeti arttırıyor. Türkiye'de LEED daha pahalıya mal olurmuş. Ancak, Katar'da, BS standartları kullanıldığından, ki British standards LEED in standartlarından çok daha ağırmış, sertifika almanın maliyete çok da bir etkisi olmuyormuş. Umman'da yapılan bir havalimanı projesi büyük ihtimalle, Türkiye'de ortalama bir LEED sertifikalı projeden çok daha pahalıya mal olurmuş. ENKA'nın yaptığı işler, Türkiye'de yapılacak işlerle kıyaslanamazmış.
Bir de Amerikan SDM (Sustainable Design Manuel) standartları varmış. Sustainable Airport Constructionları için belirlenmiş.

İşveren ekip, ne kadar tecrübesiz olursa, o kadar çok standartlara uyulmasını istiyormuş. Eğer tecrübeli olursa, yorum yapabiliyormuş ve nereye kadar tolere edilip edilemeyeceğini, constructable olup olmadığını anlıyormuş. ENKA'da kendi kullandıkları programlarla hesaplamalar yapıyorlarmış. Ve daha sonra hesaplanan

her bir dış cephenin, her bir parametresi işverene onaylatılıyormuş. Ve bu inşaat süresini de uzatıyormuş.

Tayfun Bey, LEED ve BREEAM'i, daha çevreci binalar yapmaya uygun, amerikalıların ve ingilizlerin empoze ettiği sistemler olarak görüyor. Ve bu sistemlerin belli bir para kazanmayı hedeflediğini söylüyor. Türkiye için, gelişmekte olan ülkeler için, yeşil bina zihniyetini vermek açısından yardımcı olacaklarını düşünüyor. Belli bir yapı teknolojisine ulaşmış, onu zaten dünya çapındaki firmalarla zorlayanlar için çok destek olacak birşey değil diyor. Ancak LEED hiçbir şey yapmamaktan iyi diyor ve eninde sonunda bu çabaların küresel ölçekte bir fark yaratacağını düşünüyor. Örneğin, Afrika'da Gabon diye bir ülkede, bir proje geliştirmişler. Projede LEED ile ilgili gereklilik varmış ve bir de LEED danışmanları varmış. Orası için, böyle bir sertifikasyonun faydalı olduğunu düşünüyor.

Amerikalılar her zaman bir değil birden fazla getirisi olan işler üretirler. Dünya bankası yatırım için finans sağlıyor. IMF, Dünya Bankası hep Amerika'nın kontrolünde olan formal organizations. Yeşil sertifikaları desteklerken ve hatta kendileri de yeşil bina sertifikasyonları geliştirirken, elbette kar etmeyi de birincil hedefleri olarak görüyorlar. Ancak dünya finansal bir eşiğin krizinde. Afrika'ya sağlanan kaynak yakında durdurulacak gibi gözüküyormuş. Bu durumda, gelişmekte olan ülkelerde de inşaat sektöründe durulma olabilirmiş.

Çevreci sertifikalar, Çin, Hindistan, Rusya, Amerika ve Japonya gibi büyük ekonomilerde sürdürülemediği sürece anlamlarını kaybederler ve ayakta kalamazlar diyor. Gerçek bir değişim ve fayda, Türkiye ya da Macaristan'daki tekil örneklerle olabilecek birşey değil diyor.

LEED gibi çevreci sertifikasyonların oluşmasına neden olan problemler her geçen gün daha kötüye gidiyor diyor. Ancak, eğer ülkeler yenilenebilir enerji kullanımını gerçek bir strateji haline getirmezlerse, tüm bunların hiçbir faydası olmaz diyor. Elektrikli arabanın şarjını, eğer fosil bazlı ürünlerden elde edilmiş enerjiyle yaparsanız, onun da hiçbir faydasının olmayacağı gibi diyor.

Yeditepe Istanbul, ya da Business Istanbul gibi, tamamen camdan inşa edilmiş kulelerin cephelerinin LEED standartlarını nasıl sağladığını merak ettiğini söylüyor ve bizim cam teknolojimiz gerçekten o kadar iyi mi diye soruyor.

Çiller ya da soğutma kulelerinde kulanılan likitler, sertifika alınacağında özel, tamamen çevreci ve ozon tabakasına hiçbir şekilde zarar vermeyen ürünlerden seçiliyor. Ancak sertifikayı aldıktan sonra, eğer sertifikalı binalar artık kullanım aşamasında denetlenmezlerse, ve ozon tabakasına zarar veren likitler kullanmaya dönerlerse nolacak diye soruyor. Sertifikalı binaların belli periyotlarla kontrolünü gerçekleştirmiyorsanız bir anlamı yok diyor. Ama esas ülke olarak yenilenebilir enerjiye geçiş için gerçek bir strateji geliştirilmezse, tüm bu sertifikasyonların kel başa şimşir tarak hesabı olacağını söylüyor.

Türkiye'de zaten lüks olan konutlarda, ofislerde, biraz daha fazla para harcayayım, daha lüks malzemeler kullanayım ve sertifika alayım düşüncesinden öteye geçtiğini düşünmüyor. İstanbul'da Kozyatağı Neighborhood'da, ortalama bir konutun fiyatı 250.000 dolar iken, Çiftehavuzlar Neighborhood'da 2.000.000 dolar. Çiftehavuzlarda bir daireye LEED sertifikası alsa ve inşaat maliyetini biraz daha arttırsa ne olur arttırmasa ne olur diyor. Böyle bir sertifikasyonun alıcıyı veya kiracıyı cezbedebileceği düşüncesiyle almayı tercih eder diyor.

Türkiye'de TR-EN avrupa standartlarına gore çalışıldığını söylüyor. Türkiye'de kendi standartlarımızın olmamasının iyi olmadığını söylüyor. Türk Yeşil Bina Konseyi tarafından hazırlanmış bir yeşil bina sertifikasyon sistemimiz olsa bile, türk malzememe ve performans standartları olmadıktan sonra, çok bir fark yakalanamayacağını düşünüyor. Türk standartları enstitüsü Avrupa'yla aynı standartları kullanıyormuş ve onları türkçeye çeviriyormuş. AB standartları da BS ları baz alıyormuş.

Havalimanı konsolosluk gibi özel yapılar için geliştirilmiş bazı özel standartlar en zorlu standartlarmış. Amerikalıların konsolosluk yapıları için geliştirdikleri ASTM standardı

gibi. Mekanların birbirine hava sızdırmaması, ya da akustik olarak geçirimsiz olması gibi zorunlulukları beraberinde getiriyormuş. Yine ENKA olarak her bir tesisat geçişi için detay çalışılıyormuş. İnşaat süreci boyunca inspection (denetim) yapılıyormuş. İşverenin kontrolü varmış. İşveren talep ediyormuş ve cephenin mock-up ı yani küçük bir modeli yapılıyormuş. Wind tunnel, su geçirimsizlik testleri yapılıyormuş. BS da oldukça zorluymuş. Örneğin cephe yapan alt yüklenici Al Abbar şirketi, bağımsız test için özel bir laboratuvarla anlaşıyormuş ve bu laboratuvar test sonuçlarını direkt olarak işverene gönderiyormuş.

Oysa eğitime gelen ERKE şirketi, ne iş yaptıklarını anlatmak için verdiği örnekte, bir projede cephede açıklık farkettiklerini, yerini tespit edip silikonla orayı kapattıklarını anlatmış. Böyle bir şeyin Türkiye'de belki faydalı olabileceğini, ancak ENKA'nın tabi olduğu standartlar için çok zayıf olduğunu söylüyor.

ENKA olarak zaten akustik test, hava performans testi (whether performance test), yerinde numune kalite kontrol testi (on-site quality control sample test), sahada sızdırmazlık testi (site hose test) yaptırarak projeleri inşa ediyorlarmış. BREEAM sertifikası almak istediklerinde örneğin, sadece malzemeleri biraz daha farklı, onların standartlarına uygun almaları yeterli olurmuş. Ahşabın, özel ormanlarda yetiştirilmiş ağaçlardan elde edileninden olması, taşların geridönüştürülmüş malzemeden olması ya da kaba inşaatta temelin altına konulan dolgunun başka inşaattan parçalanarak (cracking) alınan malzemeden olması gibi. Ya da yağmur suyunu inşaat alanında dönüştürmek zaten yapılması gereken bir şey. Ancak sertifika almak; bir "trademark" olarak, etiket olarak, ticari bir marka halinde toplanmış hali oluyor tüm bu yapılması gerekenlerin. Süreç içinde mutlaka doğaya geri dönüşünü veriyordur diyor. Tek birşey bile yapılmış olsa mutlaka geridönüşünü verir diyor. Zaten paradan daha önemlisi, doğaya karşılığını vermesi diyor. Ve tüm bunların özel bir isim verilmeden yapılması gereken şeyler olduğunun altını çiziyor. Yeter ki soğutma sistemlerinin çok daha az kullanılmasını gerektirecek şartlar yaratılsın diyor. Eğer bunu bir marka altında yaptırabiliyorsanız, marka altında yaptırın diyor. Ve emniyet kemerini takmanın zorunlu hale getirilmesinin, sağlık sisteminin yükünü hafifletmek için

olduğunu anlatıyor. Ancak eğer insanların hayatını kurtarıyorsa, bu iki faydayı beraber sağlamasında da herhangi bir sakınca olmadığını söylüyor.

Interview VI

Interviewee: Architectural Design Office – Founding Partner – Senior Architect

Place: Brussels

Date: 27.07.2017

- What makes an architectural project environmentally and socially engaged or sustainable?

A huge amount of care and love. You could read all what I've written on the subject that is mostly in French. It goes firstly about the generosity; an architect should have while designing. Not forgetting that he is making a construction, in which people will live and will have to live at the lowest social and environmental impact. That means that (and there are two sides of it) the humanity is a better shapes, the humans on planet have a better shape now than the century ago. The houses are better, the people are living longer, and even you still have huge inequalities, the amount of poor people on planet has been reduced. The level of education has increased, etc. etc. It is not as bad and as dark as it is read in the newspaper everyday. But all those progress for humankind has made a huge contribution on the environment. So we know that if we want to continue to this magnificent progress of people, then we have to be much more careful in the way we are charging the environment for that.

Now, there is a goal. And it's about sustainability. The two extremes are existing in this approach. And I think the way it should be done, as first, by using science and technology. And certainly not rejecting the science and technology. There is a tendency to say that the buildings of our grandparents are better. In some way, that is true. Because they have no choice and they have much less energy at the disposals. So, they have to care to build economically. Now, on the other hand, the increase of knowledge, yes of course, is useful to make that match between human

being welfare and the respect of the environment. I give you an example. Now, there is an exemplary project, I want to make it that way. For an office building, I and a huge team of scientists from all disciplines gather. We are working in a team to better qualify the question and to give an idea. We sent people to measure the air quality of the site. And the air quality measurement requires the analysis of the chemical components of the air. Every aspects; the gases in it, bacterias in it, the viruses in it, all what can be good or bad to see whether we can get the air from outside to naturally ventilate the building. It will not be conceivable now to say I'm gonna make the building naturally ventilated if I would not care making a strong and serious technical analysis of this very specific air. Now, there is a research facility called "….", of which the main activity is that. We do the same with the water. Looking at the quality in the water and in the ground. And what we can do with that water. Now, we do the same with the micro-climate. Making very very serious fluid mechanic analysis of the wind flows of the site without our projects. And seeing how positively or negatively a building will impact those air flows and the micro-climate around it. But also, how by arranging the natural chimneys to make the natural ventilation, the louvres in the windows. How we can make the most efficient natural ventilation at low cost. Etc. etc. If we really want to make a sustainable building, far from the fancy images of the magazines showing dreams which are quite lovely, but not proven to be valid in any sense. It's basically, at first, a very patient work to look at what is the question, look at the genious loci of all its aspects and neglecting nothing to be able to have a clear vision of what the limitation or the capability/ possibility a site offer. Because this one, you will not be able to change in a short period of time. To put some hypothesis on the answer you could give, to make the building, which has the slightest and lightest environmental impact. And in parallel, you have to think about the social impact. What about the people who build the building. Obviously, you better use local craftsmen to make it and then to export it to the abroad to make a project. And so on. And then, you go to the historical aspect. What is the issue of the site? What will that building mean in a century from now? Will it still exist? Or are you making a building, that you know that it will disappear in a century. If it will disappear, you better build a building that you can remove very easily. So, avoiding, for example, any reinforced concrete. For example,

we are using, whenever it's possible, we try to avoid the use of reinforced concrete. And using concrete, that existed in humanity since millennia. For example, the Pantheon in Rome is concrete since the millennia, because it has no reinforcement in it. Etc. etc. You see another aspect is the knowledge of the material you're using. There is no bad or good material. There is bad or good uses of material. You see the question you're araising brings a lot. The answer to that question is an encyclopedia.

- What factors determine the realization of a sustainable project?

We could summarize it in a very simple sentence. You know we are both architects and engineers. Let's think about first the architect alone. What is the knowledge of the architect? Well, the knowledge of the architect is handling space, handling the void, handling nothing, shaping the volume. And to shape that volume in his material. But the real knowledge of the architect is being able of defining a room, designing a space. And to do so, he needs material. And to do that, the structure of the building has to be asked to the structural engineer, the health is the task of doctor, the volume is the task sculpter, etc. etc. So all the other, except the very fact of the void, is shared with some other knowledge, with some other actor in the process. Not it is so, that the architect is also the actor that materializes the thing. But, basicallay, it's about void and space. And I think, Louis Kahn expresses that clearly. The task of the architect is to understand the grand vision of the client. And to set that within the genious loci. And previously, he is dealing with only the physical aspect of the site. But its social, economical, cultural environment. So, there is no shame in making temporary and inexpensive building as long as it aswer to the great goal of the client. That means that without a bright client there is no bright architecture. The person, who is responsible for the quality of the architecture is not the architect. It is the client. Because without a client with a pure and enlightened and elevated vision, there is no good architecture. And so, behind the good architecture, there is always the grand vision of an enlightened client. There are much less enlightened clients than good architects. And that's why, you have so little good architecture. Not because architects cannot do it. It's because the lack of clients, who are able to ask for it.

- What about the environmental certifications?

Well, they are all and always, by its very essence, it's very limited. It's like laws or standards. Yet, they are useful. I give you an example. You might know the British system BREEAM. Typically, this is a very limited system. And it's very British. So, you cannot get as many points in the World as in Britain. And we are now, by the way, in long discussion with BRE, to show them the limitation and the appropriacy of their approach. It is scientifically and extremely critical. Yet, you know convenient mean to give some idea of what it is. But it is absolutely not a scientific system. It is a technological system that you know that creates a relative approach. But, for example, when you built something in a floodable area, you lose Breeam points. It doesn't make sense. Because if, for all social and cultural reasons, the only place where you can build, is in a floodable area, you cannot deprive people to built there. And BREEAM does not allow people to built the only place where they can built. So, what is the point to give you bad points if you oblige to built there. And it's very funny, because we are now exactly on BREEAM challenging the BRE on most of the criteria, where we can give counter example as valid as what their religion, and which are equally good for the environment. But the BREEAM doesn't allow you to go in that direction. So, I would say BREEAM would be a good system, if it would allow for alternative schemes, which you can prove scientifically to be at least as good for the environment. Yet, you can compare the standards that have been dictated after the second world war, so that all over the Europe, we could use the same nails, and the same screws, and the same bonds. It's a detail, but you know in the fifties, there were as many types of bonds, screws, and nails as the number of villages. But, it is a progress, one had to agree, the standardization of the bonds, screws and nails. And it is not because we are accepted that those are the best bonds, screws and nails. Nevertheless, there is progress. It is the same for BREEAM. It's an intellectual discipline and nothing more.

- Do you think that if the clients are not as enlightened or has a grand vision as you mentioned before, could the environmental certifications help?

No, on the contrary. For example, it is amazing to see how BREEAM is cherished by developers. BREAAM is now used by greedy developers to sell shit. And unfortunately, this is the reality. The MIPIM in Cannes (established in 1990, MIPIM gathers the most influential international property players from the office , residential, retail, healthcare, sport, logistics and industrial sectors for 4 days of networking, learning and transaction), for example. The big show of commercial architecture, they all exhibit the BREAAM Excellent / Outstanding for the most mundane, quite desperate buildings. Yet, they get the best LEED, BBREEAM or whatever the certification.

- Do you know how the sustainability characteristics of the buildings affect the financial value of that building?

That's a long story. Again, it is related with the enlightened vision of the client. Building is a question of long term. It is not a short term subject. And the value of a building is something you can only evaluate …. A building doesn't fly, doesn't dry, doesn't live, and doesn't grow. It's a very static thing, but it is subjected to dynamic things. So, it is its ability to afford the evolution of the environment, that tells the quality of a building. Any building that you think has to be long-lasting. No, it's not true. You could make temporary buildings, which are extremely respectful to the environment as long as you can reuse all its components. And after all, when the Bedouin has built a tent in the Sahara to shelter, he is making one of the most mundane but efficient action for the environment. As long as he get rid of it and not polluting the ground. Etc. etc. Now, think about the dispersion of the sewage. You know there are discussions about why should we make this huge sewage systems and why don't we use plants to purify sewage water? Well, it is not possible because of the bacterias you have in the water. If you get the shit of a person, who has a big illness, well your plant system will not be able to purify the water. And those bacteria will be found in the ground and further plants. Not to speak, the new problem coming is about the medicines, which are extremely resistant molecules, and which creates a big challenge. And all the medicine that you throw up ended up in the river. There is now a big concern in Europe, what would we do, how will be

able to… Because you know the cost of destructing those molecules is unaffordable. So, all the sewage plants now, neither filter the bacterias nor the medicines. They only dilute them. So, the issue is enourmous. Not to speak about the energy we consume. You know for the moment, on an average, every human being on the planet is consuming about 32 megawatt/ hour energy and 40 in Bengladesh and 90 in US. And we all know that fosile energy will be less and less available, unless we destroy further the environment. So, what should we count in twenty years from now in terms of energy? Will be 10megawatt/ hour for habitable planet, or 5megawatt? It won't be certainly 32! How are we going to cope with that? How many airplanes will we have? Obviously, we'll have airplanes. But, how will we do? Where will we spare energy to allow airplanes to fly? Certainly, first in buildings.

- From which sources, channels do you update your knowledge about sustainable architecture?

Internet. Wikipedia, books. And when you go to Wikipedia, you have to double-check the information. And even in scientific books. You may never rely on one scientific source. It is an obligation always to check "what if". To be positively skeptic.

- What could be done to increase the client's awareness and knowledge about the sustainable architecture?

Education and democracy and transperancy.

- But the education is given in the institutional organizations. And sometimes, these formal organizations support the capitalist system, the same system. And they give also the education…. So, which education?

Our university still able to provide the proper education. So, there will be evolution in the way teaching will be provided especially because of the amount of knowledge that is now available on the net. And it's positive. But it will influence the way we

teach. For example, the good amount of the courses will disappear in favor of the practical exercises. I mean by that that very few teachers are able to teach as efficiently as what you can find on the web. And I think, for example, for some certain basic knowledge, a kind of universal textbook, to which everone can contribute with the new discoveries, will come into existence. I give you an example. For a long period of time, the books of Timoshenko (the father of modern engineering mechanics) were excepted as the basic textbook. And Timoshenko, fifty years ago, had a great work. He is one of the first one with create this kind of box?? knowledge. Everybody could agree in this textbook at least the amount of mistakes was almost zero. More and more, huge collective work…

- But what about the awareness of the clients, or the whole world?

Well I am not able to answer to that question. Because if you see, what we have done or what we are doing, I have always work with the outstanding clients. The ones, who don't have a high vision of the duty, never come to me. So, maybe, also because, I am acting in a way that, only people who have pure ideas come to me. But what are the characteristics of those magnificent clients? I don't know. I give you an example. Those mirror glass skyscrapers pop-ing up all over the planet. It is probably one of the most stupid way of making a building. And I think, it is the high-rises, which can offer the most sustainable solutions. I wrote a book in french about an ethic utopia, in which I have a vertical city that not only economically feasible but also extremely efficient for the environment. The other problem that I need a client with 30 billion euros to built this vertical city for 30.000 inhabitants. This sounds very expensive at first. But people never think that they spend same amount of money in the coming years for the extension of their cities. Think about the roads, and the cables, and the ducts and the sewage pipes, the kitchen, the fortune that spend everyday, just to maintain that. When you learn about the money spent for public utilities, you'd be amazed. Because when you talk about sustainable architecture , sustainable city planning, and farmland… think about factories. In Europe, before the WWII, we were having vertical factories. My grandparent's textile factory was 78 storey high. And it was right in the center of the city, and all of its workmen were

living close to the factory. And nobody was annoyed by that. And after the war, the flat factory has arisen. Europe started to be invaded by flat factories 1 floor high. It destroyed the farmland. And there is no need for these factories. And now we see thanks to robots and computer, that we could again built vertical factories. And just imagine, the amount of farmland that you can recover, by suppressing all these concrete suburbs.

- The economic benefits and economic risks about going green? You talk about the net present value of these extremely sustainable, radical, or experimental sustainable work. The net present value will be higher. You talk about the 30 billion… For the vertical city, the vertical urbanism, if the client is ready to pay that amount of money, the net present value will be much higher. But there are risks. That's why the sector or the clients are afraid of trying very visionary projects.

Well, as a matter of fact, if you see, the vertical cities pop-ing up in China with very bad planning. For them to spend 20 billion euro is not a problem, because they have much more. Anyway, they built a lot of cities and doing it in a very wrong way. So, obviously, the whole planet will not built with vertical cities. And the cities with 5-6 storey high buildings works quite well as long as you have a good sewage system. If you look at the cost of Masdar, then the cost of vertical city is very reasonable and logical. It has a cost of 30 billion euros. And it's under construction.

- Do you think with the certifications, the risks can be reduced?

No, certainly not. There are the developers' buildings with huge glass facades and huge mechanical equipment, but still have the BREEAM excellent or outstanding. Yet, it is useful like the standardization. It's only tool. And having a tool is not bad. But, it is certainly not the guarantee of anything.

- Now the World Bank, or IFC have started to develop some kind of environmental labeling systems for construction sector. And they use it. They have funds and bonds to support this system also financially. So, there is kind of an institutionalization.

Yes, that's ok. You can use it as a tool. But, it's not a guarantee. Compare it with the standardization of bonds, screws and nails. They are at the same level. We needed it in the fifties. And we need this BREEAM / LEED ETC. It is only a mean. Not a guarantee of anything. Whatever creates an order in human activity is positive. But, it's only that and nothing more. Yet, useful.

Interview VII

Interviewee: Architectural Design Office – Senior Architect

Place: Istanbul

Date: 09.08.2017

- Neler mimari bir projeyi doğaya ve topluma karşı duyarlı, iyi tasarlanmış, sürdürülebilir yapar?

Şimdi tabii biz sektörde çalıştığımız için, buna çok daha ticari cevaplar da vermem gerekicek. Çünkü maalesef, iş hayatına girince insan daha ticari olarak da bakıyor. Biz, bir projeye yaklaşırken, genelde işverenlerimiz tutumlu oluyor. Onun için neler yapar dediği zaman, biz sertifika alalım ya da almayalım, her türlü maaliyeti düşük şeylerden yola çıkarak başlıyoruz. Bir yapıyı sürdürülebilir ve yeşil kılması için öncelikle, çatısına çok önemveriyoruz. Bizim için yeşil çatı, projelerimizde olmazsa olmaz. İşverenlerimize bu konuda çok baskı yapıyoruz. Daha extensive çatılar öneriyoruz onlara. Maliyeti düşürebilmek için. Maliyet darken, ilk yatırım maliyetinden ziyade, daha sonraki bakım maliyetini düşürebilmek için, extensive çatılar yapıyoruz. Ki bu da çayır çimen aslında. Doğada gördüğümüz şeyler. Yazın sararani baharlarda yeşeren, sonbaharda yokolan bitki örtüsü. Nerde yapılıyorsa ona gore. Belki kum nilüferi.. İstanbul'da yapılıyorsa, o çok güzel gördüğümüz sarılar morlar çiçek açan haliyle, bunları yapıyoruz. Islak hacimler, bizim için çok çok elzem noktalar. Çünkü en büyük su tüketimi, bu noktalardan çıkıyor. Tüm bataryalar da, bu konuya çok öenm veriyoruz. Hatta, şirket olarak gurur duyduğumuz bir nokta var ki, daha once yaptığımız bir projede, LEED sertifikası için, duş başlığının 6 litreden fazla

olmaması gerekiyordu. Ve bu yerli üretimlerde maalesef yoktu. Firma ismi vermiyim ama, yerli bir firmayla güzel bir dirsek temasıyla, istenilen ölçülerde vitrifiye tasarlattık. Armatür tasarlattık. Işte hem duş bataryaları, hem normal lavabo bataryaları, eğer fiyatı fazla gelirse, en azından perlatörünü değiştirip, daha az debiyle su akıtan armatürler seçiyoruz. Klazötlerde kesinlikle çift bölmeli ve daha küçük kapasitelerle çalışan klazötler seçiyoruz. İşverenimizden onay alabilirse, gri tesisata çok önem veriyoruz. Yani, lavabolardaki suyu alıp, bahçede kullanmaya. Su, yağmur sularını toplama, bizim için önemli bir unsur. En azından bahçede kullanmak için. Türkiye'deki işverenler, bunu günlük hayatta çok kullanmak istemiyorlar. Ama, bahçe sulaması dediğimiz zaman, ona birazcık daha iyimser yaklaşıyorlar. Böyle bir suları topluyoruz. Direkt rögarlara atmak yerine, o suyu kendi içinde toplamayı tercih ediyoruz. Cephe, aşırı önemli bir unsur. Bu konuda hiç işverene danışmadan, hayır böyle olması gerekiyor zaten diyerek, yönlendirerek, cam cephelerdeki, özel ısı camları, güneş geçirgenliğini azaltan camları tercih ediyoruz. Kesinlikle, bu bizim için önemli bir factor. Onun dışında, enerji sarfiyatına çok önem veriyoruz. Özellikle, genelde hastane okul ve yüksek yapı yaptığımız için söyliyeceğim, ortak kullanım alanlarındaki ışıkların, hem hareket hem ışık/ güneş sansörü olmasına dikkat ediyoruz. Eğer güneş yoksa, boşu boşuna aydınlatma açık olmasın diye. Veya işte, orda bir hareket yoksa otomatikman kapanması. Uzun koridorlarda, otellerde, yurtlarda, aydınlatmayı anında yanan tarzda değil de, bir acil durum aydınlatması yapıp, onun dışında insan hareketiyle birlikte devamında yanan aydınlatmalar kullanmaya önem veriyoruz. Seçtiğimiz ürünlerde, hem firmamızın karakteri gereği, hem de sürdürülebilir olmasının çok önemli olması nedeniyle, yerli ürünler kullanmaya çok gayret ediyoruz. Eğer gerçekten yerli üretimde muadili yoksa, mecbursak, evet, yurtdışı ürünleri de tercih ediyoruz. Ama muadili varsa, öncelik bizim için herzaman, yerli firma. Çünkü, bir ürün ne kadar yeşil olursa olsun, o ürünü Amerika'dan getirttiğimiz zaman, Almanya'dan getirttiğimiz zaman, o gelme nakliyesiyle, yeşil özelliğinin, sürdürülebilirliğinin, bütün herşeyinin yok olduğunu düşünüyoruz. Doğal havalandırmaya mümkün olduğunca önem veriyoruz. Yine okullarda, yurtlarda yaptığımız projelerde, tabi ki hastanelerin ameliyathanelerinde bunları yapamıyoruz. Ama bu tip yerlerde, mümkün olduğunca cebri havalandırma yapmaya gayret ediyoruz. İşverenemizi de, bu konuda yönlendirip, onların da doğal

havalandırmayı nasıl kullanabileceklerine yönelik, mühendislerimizle birlikte çalışmalar yapıyoruz.

- En ağırlıkla hangi faktörler, sürdürülebilir ve iyi tasarlanmış bir projenin gerçekleşmesini belirler?

Bir projenin iyi lması için, mimar tabi ki çok önemli. Ama iyi eğitim aldık. Sektörde uzun süredir varolan şirketler de mutlaka bu bilinçte oluyor. Ama bence bir projenin iyi olması için birinci unsur işveren. Maalesef, işveren hem bu konuya çok önem vermeli, hem de ilk hedefi para olmamalı. İlk hedef para olursa, son tüketiciyi düşünmezse, doğayı düşünmezse, gelebildiğimiz noktalar çok kısıtlı oluyor. Hani, her türlü, o yapıyı yeşil yapmak için, maaliyetleri çok arttırmadan, birşeylar yapıyoruz. Biz projelerimizde buna önem veriyoruz. Yapının, konumu, yeri, seçilen malzemelerle, zaten yapıyı mümkün olduğunca yeşil kılıyoruz. Ama, işveren odaklı bir iş yapıyoruz. Yani, maalesef mimari sanatın bir dalıdır ama otomatikman para olmadan yapılamaz. Çok proje aşamasında kalır.

- Sizin için tasarımını yaptığınız bir projeye sertifika alıp almamanız birşeyi değiştirir mi? Neden?

Çok değiştirir. Çok değiştirir. Çünkü, bu ego değil. Benim şu sertifikalı projem var gibi değil. Ama önümüzde bir sertifika ismi olduğu zaman, herkesi ikna etmemiz daha kolay. Başta işvereni ikna etmemiz daha kolay. Çünkü, bir noktada bazı şeyler, mimari kapris olarak algılanıyor. Bu hayır, mimari kapris değildir. Bu benim estetik anlayışım değildir. Bu yapılması gerekendir demek için bir sertifika olması gerekiyor. E bir de hani tabii, ben LEED Gold aldım, bu benim sertifikalı binam demek de, bir mimar olarak da motive edici birşey.

- Sertifikaların, binalarda çevresel ve sosyal sürdürülebilirliği, ya da iyi tasarımı garantileyebileceğini düşünüyor musunuz? Ne kadar itimat etmeliyiz? Sektörde kötüye kullanım gözlemlediniz mi? Bu bir sınavsa, sınavdan yüksek notla geçme isteği kopya çekme isteğini de getiriyor mu?

Hayır getiremez. Çok iyi control ediliyor. O yüzden getiremez. Bahsettiğimiz sertifikalar, bir TS değil, parayı bastırdım orda gösterdim diyebileceğimiz birşeyler değil. Bunlar, yapılıyor. Tüm dökümanları, mesela yerli ürün kullanmak artı puandır, bu ürün kullanıldıktan sonra, bunun faturasını da belgelemek zorundasınız. Yani, ben sadece mimari olarak bunu yaptım çıktım diyemiyorum. Atıyorum, mesela, o inşaat sırasında kamyonların geçişindeki, o şantiyedeki tozları almak için, kamyonların tekerleklerinin bir sudan geçmesi gerekiyor. Bunu gelip gözlemliyorlar ve evet bu yapılmış diyorlar. Çok iyi bir control mekanizması olduğu için, bence hileye çok kaçılamıyor. Ama negative kısmını söyleyeceğim. Bu sertifikalar daha dünya bazında. Yani aslında bence biraz daha lokalleşmesi gerekiyor. LEED dediğimiz şey, Amerika meşeili. BREEAM İngiltere. Aslında biraz daha yöreselleşse. Çünkü bazı şeylerde şu oluyor. Puan almak için yapmam gerekiyor hoş değil. Am onun dışındakiler, hile yapılır veya bir sınava tabi gibi görmüyoruz biz bunu. Çünkü bu şey değil. Entegre bir tasarım. Biz bir projemizde LEED sertifikası alacaksak, şirket olarak da, patronum BREEAM assescor. LEED veya BREEAM alacaksak, dışarıdan bir danışman tutuyoruz. O danışman tasarımın her aşamasında oluyor. Yani biz tasarlıyoruz, mühendislerimiz tasarlıyor. Her hafta yapılan koordiasyon toplantısında, o da masada bulunuyor. Hayır bu olmamış diyor. Bunu yapamazsınız diyor. Böylece yapılan daha bütünleşik bir tasarımla, daha iyi bir noktaya geldiğimizi düşünüyorum. Belki, o devreden çıksa, daha farklı bir bina olacak. Belki daha estetik olacak, ama amacımız o değil. Daha bütünleşik bir tasarımla, daha iyi bir noktaya gelebilmek.

- O kadar ideal bir yaklaşımdan siz şu an bahsettiniz ki, en başından itibaren bir danışmanla beraber çalışmanız mesela. Bazen öyle şeyler oluyor ki, son dakikada işveren diyor ki, bir sertifika alabilir miyiz? Ve bir anda, o zaman şurdan 2 puan alalım, şurdan 3 puan gibi yaklaşımlar da oluyor sektörde.

Şöyle, bizim de başımıza o tip şeyler geliyor ama, bizim şöyle bir avantajımız var. Zaten dediğim gibi, patronum bu işin içinde. Ayrıca bir de, atölye olarak, çalışanlar olarak, hepimiz de bu eğitimi aldık. Hepimiz eğitim aldığımız için, bir danışman tabi ki bilgisiyle bizi yönlendiriyor ama, biz açıkçası mimarlar olarak, yaptığımız tasarımlar

olarak, danışmandan da çok da feedback almıyoruz. Yani tabi ki alıyoruz ama, bu olmamış demiyor. Çünkü biz onu yaparken, her projemizde sertifika alalım almayalım böyle yapıyoruz. Yani, her projemizde fix, aydınlatma konusuna önem veriyoruz. İşverene baskı yapıyoruz. Enerji bir, yeşil çatı iki, cephe üç, su tüketimi dört, kullanıcı gereksinimleri beş. Bunlar bizim zaten must ımız. Biz bunları sertifika alalım veya almayalım her türlü yapıyoruz. Sertifika alacağız diyince işveren, o zaman pv panel koyarsınız siz diyoruz. O zaman burda rüzgar tribune de olur. Yani çünkü alacağım derse, tamam biraz daha bütçemi açacağım demek o. O zaman biraz daha lüks diyim, daha puana yönelik ve fiyat olarak arttırıcı unsurları o zaman öne sürüyoruz. Ama bizim yaptığımız projelerde açıkçası, işveren son dakikada sertifika almak istiyorum derse, bir kere kesin bir silverı garantilemiş olur da, projedeki bazı revizyonlar golda kadar taşır.

- Peki mesela, Silver'dan Gold'a kadar taşırken, biraz daha elimiz bütçemiz açılır, rüzgar tribune kullanabiliriz. Biraz daha lüks olabilir. Silver'dan Gold'a geçerken, gerçekten eliniz açıldığında, daha fazlşa bütçeniz olduğunda, bunun karşılığını da çevre ve topluma yönelik alır mısınız?

Evet.

- Bir binanın sürdürülebilirlik özelliklerinin, o binanın parasal değerini nasıl etkilediğini biliyor musunuz?

Bizim ülkemizde, şu anda aslında reklamlara da bakarsanız, yapılar pazarlanırken LEED sertifikalı diye pazarlanıyor. Yani bu artık, ülkemizde resmen bir pazarlama unsurudur. Çünkü LEED denildiği zaman, o bu Amerika'dan da control edilmiş diye, son tüketiciye bir düşünce oluyor. Daha bilinçli tüketici, bu binada sertifika varsa, demek ki ben kullanırken daha az para harcayacağım. Elektriğim daha az tutacak, daha az su parası ödeyeceğim diye düşüncesi oluyor. Onun için, evet, bir proje aldıysa, finansal anlamda, son tüketici de bilinçli olduğu zaman, fiyatları arttırıyor ve verdiğini aslında yatırımcı da alabiliyor. Ama tabii şu var, yatırımcılar, eğer kendine hastane yaptırıyorsa, o çok daha uzun dönemde karşılığını alabiliyor. Yani kendine

yaptırdığı birşeyde, uzun dönemde, tüketim dönüşleri 10 sene 15 sene olabiliyor. Ama bir konut yaptırdıysa, otomatikman fiyatı yükseldiği için direct, o karşılığı almış oluyor.

- Değerleme sektörü sürdürülebilir tasarım kararlarınızı etkiledi mi? Nasıl? Hiç bir müşteriniz tarafından, maddi endişelerle, tasarım kararlarınızın sınırlandırıldığı oldu mu?

Yani şöyle, biz, bizim ülkemizden biraz daha ileride baktık bu konuyo. 2006 yılında, sertifika eğitimi almaya başladık şirket olarak. Ki Türkiye'de daha yoktu. İlk LEED alacak binayı tasarlamıştık, İTÜ'de bir eko-yapı. Ama İTÜ nün bütçesinden dolayı o yapı yapılamadı. O zamanlar hiç Türkiye'de olmadığı için, açıkçası, bu değerleme Türkiye'ye geldikten sonra, bizi bir adım öteye götürmedi. Şu oldu. İşverenler bu konuyu duyduktan sonra, yeni talepler oldu. Bunu yapabildir. Ama, yani açıkçası, peek çok projemizde, işverenin yatırım maliyeti nedeniyle kıstığı noktalar oluyor. En basiti, şu anda Türkiye'nin en iyi üniversitelerinden birine, boğaziçi'ne, yurt binası yapıyoruz. Ve orda yeşil çatıyı Kabul ettiremiyoruz. Maliyeti çok olmayan, hala bastırdığımız bir nokta. Onun için, işveren en önemli unsur.

- Portjöy yatırımcılar, satma odaklı proje geliştiricilerle çalıştığınızda bir fark oluyor mu?

Boğaziçi'ni yaptık, kendi kullanıcaktı. Kabul etmiyor hiçbir şeyi. Kristal Kule'yi yaptık Soyak'la, onlar satıcaktı, müthiş bir işverendi. Çok bu konuda yenilikçiydi. Satacakları halde, herşeyi yaptılar. Anadolu Sağlık Merkezi'ni yaptık Gebze'deki Hastane, müthişlerdi. Direkt ne gerekiyorsa yaptırdılar. O aslında işverenin ileri görüşlü olması, doğaya verdiği saygıdan gelen birşey. Onun için şey söyleyemeyeceğim. Satan mu yapar, kullanan mı? Ama belki de şu var, biz Ağaoğlu kadar, tamamen ticari olan bir şirketle işimiz olmadı. Hep, sağolsun işverenlerimiz de düşünceliydiler. Biz de doğaya bir yapı bırakıyoruz dedikleri için, düşünceliydiler. Ama tabi, öbür türlüsü de oluyordur muhtemelen.

- Ekonomi sayılardan ziyade, daha çok algıyla ilgili bir konu. Hiç algısal yanlış anlamalar veya önyargılar dolayısıyla, bir müşteriniz veya uzman tarafından sürdürülebilir tasarım kararlarınızla ilgili, kısıtlandırıldığınız sınırlandırıldığınız oldu mu?

Kısıtlanmamız olmadı. Çünkü önyargıyı kırabildik. O yüzden olmadı. Belli önyargılarla geliyorlar. Bir kere, ilk önyargıları çok pahalı diyorlar. Onlara anlatıyoruz. Bak çok pahalı diyorsun ama, bu vitrifiyeyi kullanırsan fiyatı bu, bunu kullanırsan fiyatı bu. Pahalı değil ki. İŞverende önyargı olabilir. Ama eğer deneyimli bir mimarlık şirketiyse, bu işe hakkaten gönül verdiyse, bu önyargıyı kırabilir. Tamamen önyargıda bırakmadık işi.

- Hangi kanallardan, kaynaklardan, sürdürülebilri mimari ile ilgili bilgilerinizi güncelliyorsunuz?

Şirket olarak şansımız, patronumuz bu konuda çok öncü. Ayşe Hasol. Yurtdışında hep eğitimleri alıyor ve o aldıktan sonra bize de burda o eğitimleri kendi veriyor. Hem de ülkemizde yapılan eğitimlere de bizi yönlendiriyor. Erke'den hepimiz eğitim aldık. Ayrıca bu tabi ki, basını da takip ediyoruz. Daha çok yurtdışı bazlı takip ediyoruz.

- Vitrifiye seçerken, hani belki, relamlar etkili oluyor mu? Sonuçta, reklamlar ürün tanıtımı da olmuş oluyor.

Şöyle. Seçtiğimiz armatürler, çok reklama çıkmayan armatürler aslında. Reklamı yapılan armatürler daha az ekolojik , daha görsel oluyor. Biz yerli ürün çok kullanıyoruz. Kaleyle, vitrayla, oturup, biz bunları şunları istiyoruz diye konuşarak, onların yönlendirmesi ve bizim yönlendirmemizle bir noktaya geliyoruz. Onun için reklamın bir önünde ilerliyoruz.

- Yurtdışında, Ayşe Hasol nerde eğitim alıyor diye sorsam?

Amerika'da İngiltere'de eğitim alıyor. Daha sonra online eğitimler de oluyor. Yani eğitimi aldıktan sonra, direk yerinde giderek de, ama hiç gitmeden de yapılıyor. Belli bir ücret veriliyor, gün içinde 2 saat, kulaklığı takıp, hocayla birlikte, online olarak, o dersi alıyorsunuz. Ayrıca sınavlara da yine online olarak girebiliyorsunuz.

- Yeşil bina konseyleri, GBC, öyle bir konseyden eğitimini alıyordu değil mi?

Evet.

- Müşterilerinizin sürdürülebilirlik ile ilgili beklentileri tasarımınız nasıl etkiliyor?

Müşterinin vizyonuyla, karakteriyle ilgili, daha once de dediğim gibi.

- Ne ölçüde, sürdürülebilir iyi bir tasarımın, potansiyellerini ve faydalarını anlatmanız, yatırımcıyı ikna eder?

Eğer ikna etmeye 100 puan vereceksek, bunun 75 ini ikna edebiliyoruz. Ama diğer 25 I çok maddi olarak bakılıyor ve ondan biraz zorlanabiliyoruz. Ama ilk 75 ine ikna ediyoruz. Hatta ilk 50 sini işveren sunmuyoruz bile. Çünkü ilk 50 si işverene sunmadan yapılabilir. Binanın yönlenmesi, bodrum kat sayısı, seçilen cephe, o doğaya uygun olması, yerel malzemeler gibi konulara zaten işveren çok dahil olmaz. Onları yaptığımız zaman zaten ilk 50 yi cepte alıyoruz. 25 I işvereni ikna ederek, ikna ederek dediğim açıklayarak, hiç iknaya bile gerek kalmıyor. Onu da direkt alıyoruz. Kalan 25i, dirsek temasıyla. Bunun evet bütçesi bu. Ama eğer sen kullanıcaksan 5 yılda dönüşünü alırsın. 3 yılda dönücek. 10 yılda dönücek. Kabul ediyor musun gibi yaklaşımlarla gidiyoruz. Ofis olarak da ama, bilinçli müşteriler seçiyoruz. Her müşteriyi Kabul etmiyoruz.

- Siz ortalamanın üstünde bir ofissiniz ama, ortalamanın daha iyi bir konuma getirilebilmesi için ne yapılabilir?

Mimarların iyi eğitim alması gerekiyor. Şöyle, bu olayın %50sini her mimar bu bilinçle yaklaşırsa aslında zaten cepte.

- Peki yaklaşıyorlar mı?

Hayır yaklaşmıyorlar. Çünkü zaten bu tip eğitim veren üniversite sayısı, bu yönde öğrenci yetiştiren üniversite sayısı maalesef çok değil ülkemizde. Ama o bilinç gelince, bir de ne olursa olsun ilk çalıştığı yerdeki partonunun bilinçli olması çok öenmli. Ben 11 senedir bu şirketteyim. Ben ilk şirkete girdiğimde, beni bunların içine yönlendiren bir patronum oldu. Haliyle ben de araştırdım, ben de okudum. İTÜ mezunuyum. Ki İTÜ de de bunlar çok öenmlidir. İTÜ mezunu olmama ragmen farklı bir şirkete girseydim, bu olaya bu boyutta bakmayabilirdim. Onun için gerçekten, mimarlar odasının vereceği zorunlu eğitimlerle, ilerleme kaydedilebilir.

- Şeyi düşünüyor musunuz? Mesela Has Mimarlık gibi ofislerin varlığının, etrafa yayılacağını düşünüyor msunuz? Genel, zorunlu eğitimden öte, sizing gibi ofislerin sayısının artarak, bir farkındalık yaratacağını düşünüyor msunuz?

Var tabii, ama onun için de büyük ofis olmak gerekiyor. Sonuçta, ben mezun olduktan 3-4 sene sonra bir ofis kursaydım, benim ofisimde çalışanlar için o bir okul olmazdı. Çünkü, benim burda duayenlerim var, Hasol ailesi. Bu şirketin bir kültürü var. Ben bu kulture girdim. Dünyada da bu böyle. Eğer daha köklü bir firmaya girerseniz, eğitim hayatınıza çalışırken de devam edersiniz.

- Piyasa sürdürülebilir bina tasarımında, radikal öncü, deneysel, çoğulcuyaklaşımlara ne kadar açık ve hazır? Eğer, öngörüsü yüksek, alışılmadık, daha once inşa edilmemiş bir proje hazırlarsanız, o projeyi inşa ederler mi?

Hayır.

- Neden?

İlk söylediğim şey. Mimari maalesef sanatın çok pahalı yapılan bir dalı. Ve, işverenlerinizle, vizyonu ne kadar geniş olursa olsun, farklı birşey yapacaksa, yabancı mimar tercih ediyor maalesef. Ki onun için de ülkede, çok farklı bir yapı yapılmıyor. Biz şanslı bir şirketiz. Kristal Tower projesi var elimizde. Ama nasıl yapıldığını bir biz biliyoruz. Neler çektiğimizi. Maalesef bizim ülkemizde çok zor.

- Sürüdürülebilir iyi tasarlanmış bir binanın ekonomik faydaları nelerdir? Bu ekonomik faydalar tasarımını etkiliyor mu?

Bize karışan olmuyor. Biz işvereni bazen ikna etmeye çalışıyoruz. Sen bunu yap ki, adın duyulsun. Sen bunu yap, geri dönüşü çok kısa sürsün. Sen sükse yap dediğimiz oluyor. Biz bunu bir pazarlama taktiği olarak kullanıyoruz.

- İşveren buna kendi mi karar veriyor? Yoksa onun da bir danışmanı oluyor mu?

Her hafta koordinasyon toplantısı yapıldığı zaman, bütün mühendislerimiz, biz, bütün danışmanlarımız, dönemine gore , yangını, akustiği masa başında oluyor. En baş köşede de işveren oluyor. Biz kapalı kapılar ardında iş yapmıyoruz. İşverene bak bunun böyle olması gerekiyor diye söylemiyoruz. O da burdayken, mühendisle danışman çalışırken, o da bunun içinde bulunuyor. Onun için herşeyi son derece açık olarak görüyor. Bir de genelde, danışmanı da işveren tuttuğu için, o da onun danışmanı oluyor.

- Sürdürülebilir iyi tasarlanmış bir proje yapmanın riskleri ve dezavantajları nelerdir? Sertifika alımıyla değişiklik gösteriyor mu?

Dezavantaj olarak, bir tek ilk yatırım maliyeti geliyor aklıma açıkçası. Yani şu var. Bazen bir armaturü çok beğeniyoruz. Bir açıp bakıyoruz ki, yok ya bu debiyle bu armature kullanılmaz diyoruz. Bu tip unsurlar oluyor. Sonuçta piyasada 10 ürün varsa, biz zaten o 10 üründen 3e düşmüş oluyoruz. O 3ü arasında seçim yapabiliyoruz. Böyle bir kıstasımız var. Onun dışında çok bir risk, diyebileceğim.. Yeni yapılan şeylerde bazen problem oluyor, onu ilk defa kullandığımızda. İşte mesela

Türkiye'deki bu ilk sensörlü klazötleri projemizde kullanmıştık. Ve çok gelişmemişti o zaman bu yerli sensörler. Hani o tip şikayetler aldık. Bu tip riskler oluyorsa oluyordur. Onun dışında da çok da bir riski olduğunu düşümüyorum. Hani negatifliği belki evet, daha büyük bir kümeden, daha küçük bir kümeye düşmek seçim yapabilmek için o kadar.

- GBC lar ve sertifikasyonlar, genel anlamda sürdürülebilir mimari nasıl etkiliyor? Yardımcı mı oluyorlar, yoksa mimarları sınırlandırıyorlar mı?

Bence çok yardımcı oluyorlar. Sınır olması da kötü birşey değil aslında. Belli bir sınır olmalı. Sonuçta, dümdüz bir arsada bir proje yapınca, daha olağanüstü birşey çıkacak diye birşey yok. Belli sınırları olduğu zaman, bu sınırlar içerisinde daha hoş şeyler de çıkabilir. Ama evet sınırlandırıyor ve çok yardımcı oluyor. Çünkü sonuçta nolursa olsun belli bir bilgi birikimimiz var. Çıkan her sertifikayla, aa bu da yapılmalıymış deyip, onun araştırmasını yapıp, ordan yola çıkıyoruz. Yani işte, verilecek eğitimle birlikte, bildiğimiz belli noktalar var. bir yapının yeşil olması için, suya önem ver, yakıta önem ver, cepheye önem ver. TIK tık tık. Ama mesela atıyorum, bisiklet parkı koy. Onun da duşu olsun. Bu mesela aklımıza gelecek birşey değil. Sertifika olunca yapıyoruz ve İstanbul gibi bir kaos şehirde bile artık bu yapılıyor. Oyüzden bence çok faydası oluyor bu yapılan sistemlerin.

- Mesela Dünya Bankası, IFC, vb. yeşil sertifikasyon geliştiriyorlar. Ve daha global ölçekte, yatırımcılarına, direk kendi sertifikasyonlarını kendi hazırlamaya başladılar. Mutlaka mimarlar çalıştırıyorlardır. Ama finans kurumları sertifikasyon hazırlamaya başladı.

Çünkü çok güzel para var. bu şey açıkçası, bu sertifikasyon sistemlerinin en negative tarafı da budur. Çok para için olan birşey bence de. Çünkü, mesela en basiti, danışman tutarsanız ekstra puan alıyorsunuz. Bir modelleme var, o modellemeyi yapınca, ki çok maliyetli, ama o modellemenin yapılması gerekiyor. Bu çok büyük bir ticari unsur. Onun için de sürekli yeni sertifikalar çıkıyor. Bunlar her 3-5 senede bir

tekrar güncelleniyor. Sistemler ufak tefek değişiyor. Tekrar eğitim almanız gerekiyor. Tekrar o parayı veriyorsunuz. Ticari birşey.

- Böyle bir sistem, dönen çark, müşteriler bazen o kadar çok isteksiz oluyorlar ve maddiyat odaklı olaya yaklaşıyorlar ki, sertifikalar mimarlar için iyi ve tutunacak bir dal oluyor. Çünkü daha iyi sonuçlar getiriyor. Fakat, bu kadar ticari bir unsurun bu sertifikasyonları beslemesi benim kafamda soru işareti oluşturuyor. Sözde çok çevreciyiz ama büyük ölçekte başkanları Paris Antlaşmasını imzalamıyor.

Kapitalist bir dünyada yaşıyoruz. Çok garip gelmemeli. Ama açıkçası, yeşil bina komisyonları da işin ticari boyutu. Tabi ki, baktılar, ordaki pasta payı büyük. Pasta payından faydalanmaya çalışıyorlar. Bir yandan sertifikasyonlar devam ederken, bir yandan da daha doğayı yok edecek şeyleri destekleyecekler. Evet çirkin. Am işte işvereni ikna etmek için de, onun eline birşey vermek gerekebiliyor. Bak bu da senin sertifikan dediğimizde, maalesef avantaj oluyor. Yani bilinç yaratabilmek için.

- Yeterli bir bilinç mi bu?

Yeterli kelimesi zor ama bilinç yaratıyor. Bu da şundan belli. Ülkemizde son 10 yılda gelinen noktada, reklamlara baktığımız zaman, reklamlarda çok fazla dile geldiğine gore, reklamı da veren işveren olduğuna gore, demek ki belli bir bilinç geldi . Bu cebine girecek parayı arttıracak bir bilinç olabilir ama bir bilinç geldi.

Interview VIII

Interviewee: Architectural Design Office – Senior Architect
Place: Istanbul
Date: 11.08.2017

- Neler bir projeyi doğaya ve topluma karşı duyarlı, iyi tasarlanmış, ve sürdürülebilir yapar?

Bizim ofis özelinde söyliyim, bazı hayallerle yola çıkılıyor gibi görünse bile, işin ve işverenin yapısına ve yoldaki hikayelere bağlı olarak, eğer baştan biz daha doğaya uyumlu, malzemelerimizin geridönüştürülebilir ya da sertifika alma niyetiyle yola çıkılıyorsa eğer, biz mimar olarak o yönde seçimler yapıyorız. Bu tamamen işverenle ve işin kapsamıyla ilgili bir konu oluyor. İş en baştan, masaya oturduğumuz zaman, bu proje sürdürülebilir bir proje olsun kararı almıyoruz. Bunu baştan net bir şekilde koyabiliriz. Yani, ama şunusöyleyebilirim. Diyelim ki, işverenin böyle bir niyeti yok . İşte de öyle bir şekilde yola çıkılmadı. Ama, bizim şirket olarak, her zaman, şöyle bir politakımız vardır. Eğer İstnabul dışında özellikle bir iş yapıyorsak, mutlaka yerel malzeme öncelikle. Yani, orada çıkan taş. Oraya yakın bulunan ahşaplar. Yani hiçbir zaman şöyle şımarıklıklar yapmıyoruz. İşte ille bilmem ne ahşabı olacaktır. Öyle birşey yok. Eğer diyelim, Bodrum'da biz proje yapıyoruz, kazı yapıyoruz. Değil mi, orda illa ki bir kazı yapıyorsunuz. İşte taş duvar, genelde Bodrum'da, ya da daha sayfiye yerlerde, böyle taş duvarlar, taş dokular mimarların da hoşuna gittiği için, işverenlerin de hoşuna gittiği için bunları kullanıyoruz. Mutlaka ordan çıkan taşı kullanıyoruz. Bu %100 dür. Yani, o projenin sürdürülebilir bir kararı alındı, alınmadı diye bir derdimiz yok. Bu mimari bir tercih. Hem oraya daha uyumlu olduğu için, yani contextte daha doğru durduğu için. Yani gerçek olduğu için. Hem de aslında alt yapıda böyle bir bilinç olduğu için. Ama hiçbir zaman işverene biz bunu sürdürülebilir yapmak istiyoruz diye demiyoruz. Bu bir mimari tercih herşeyden once. Bir ere yereli kullanmak doğru bir duruş olduğu için. Ama tabii günümüz jargonuns gelince de, bu bir sürdürülebilirlik durumuna da destek oluyor bir şekilde. Ama dediğim gibi, diyelim ki İstanbul'da bir ofis binası yapıyoruz. Baştan sıfır. Biz bu ofis binası sürdürülebilir olsun diye birşeyle yola çıkmıyoruz. Çıkamıyoruz hiçbir zaman. Bu çünkü işverenden gelecek bir taleple, ortak alınacak bir kararla olabiliyor. İstanbul'da çünkü yerel malzeme kullanalım diye birşey olamıyor. İşte bunu sizde biliyorsunuzdur.

- En ağırlıklı olarak hangi faktörlerler sürdürülebilir ve iyi tasarlanmış bir projenin gerçekleşmesini belirler?

Yine proje özelinde olacak ama.. Yani eğer o proje diyelim ki bir okul projesiyse, ve İstanbul'un da dışındaysa, bir sosyal sorumluluk, bir duruşu olması gerektiğini

düşünme ihtimalimiz de artıyor. Ona gore de bu tip fikirlerimizi işverenle paylaşıyorız. Ama, dediğim gibi, Levent'te br ofis binası yapılıyorsa, bu da çok katlı değilse.. Hani çok katlı binaların Leed sertifikalı olması ya da bir takım başka sertifikalarının olması, her anlamda, işveren için de daha dönüştürülebilir bir durum oluyor ya. Yani, hem reklam, hem işte çevreye duyarlı duruş sergilemek açısından faydası oluyor. Yani öyle bir duruş sergilemek istiyorsa evet. Ama onun dışında, standart biryerde birşey yapıyorsak, orda bu konular çok gündeme gelmiyor açıkçası. Biz de tek başımıza, işte dönüştürülebilir malzemeler kullanalım şeklinde yola çıkamıyoruz. Maliyetler var, işverenin istekleri var. Orası için ne gerekiyorsa, onları kullanıyoruz. Ama ofis olarak şunu söyliyim. Böyle bir ithal malzeme gibi bir derdimiz yok. Daha uygulaması kolay, o projenin kendi içinde enmantıklı neyse. Yani, bu da belki bir anlamda Türkiye'de iş yapma ölçeğinde, bir anlamda sürdürülebilirlik oluyor. Yani, ekstra bir maliyet, ekstra bir shipping, yani ordan bilmem ne getirelim, ispanya da bilmem ne malzemesi varmış, çok havalı, ille o olsun. Öyle bir politikadan uzak bir ofisiz onu söyleyebilirim.

- Demek ki öyle ofisler var yani.

Var var, olmaz olur mu. Yani, tasarım ofislerinin çoğu aslında, aldıkları mimari eğitimi, işte bizim patronlarımız gibi, ne diyim işte 25-30 sene once bir eğitim almışlar ortalama, bizim gibi, bizim ölçekli mimarlık ofisleri gibi düşünürsek, onların hepsi aslında, öncelikle yereli koyar. Olması gerekeni koyar. Yani malzemeyle bir hava atma, malzemeyle böyle bir oyunlar yapma çabasına çok girmez. Bence de bu bir anlamda sürdürülebilirlik diyebiliriz. Çünkü israf etmek istemez. Bence bu iyi bir duruştur. Bizim ofisimizin de böyle bir duruşu vardır. Ama işte bu kataloglardan, biz sürdürülebilir malzeme falan araştırmıyoruz. Onu söyliyim.

- Sizin için tasarımını yaptığınız bir projeye sertifika alıp almamanız ne kadar değişikliğe neden olur? Yani belli bir standardı zaten koruyan projeler ürettiğinizi düşündüğüm için, çok ciddi farklar oluşur mu sertifikayla?

Bu kararlar zaten baştan alınıyor. Daha once de böyle çalışmalarımız oldu. O karar baştan alınınca zaten, herşey ona gore ilerliyor. Çünkü, LEED in BREEAM in çok katı kuralları var. İşte hangi malzemeyi nereden getirdiğinize ve nasıl getirdiğinize kadar, uzun bir süreci var. O zaten baştan konduğu zaman, biz tamamen o kararlara o standartlara gore ilerliyoruz. Orda hiçbir sorun olmuyor. İşte o ahşabın cinsi, nasıl kaplanacağı.. O ama baştan alınacak bir karar.

- Peki sizce, daha sezgisel sürdürülebilirlikten bahsettiniz. Peki tabi ki her ofisin sizin gibi olması beklenemez ama. Sizin için sorayım, sezgisel yaklaştığınızda mı, yoksa bir sertifika aldığınız zaman mı daha iyi? Yani fark oluyor mu gerçekten. Bilmem nerden Amerikadan ahşaplar falan gelince, daha sürdürülebilir oluyor diyebilir misiniz?

Onu şu anda böyle bir bilgim olmadığı için birşey diyemem. Biz naapıyoruz. Bir standart ve bir sertifika isteniyorsa bir projede, o malzemeyle alakalı en çok güvendiğimiz firmaları çağırıyoruz buraya. Ahşapsa ahşap firmaları. Biz diyoruz ki, bu standartlarda böyle malzemeler istiyoruz. Ve o malzemelerin de biz şöyle görünmesini istiyoruz diyoruz mimar olarak da. Onlar da bize seçeneklerini sunuyorlar, biz arasından seçiyoruz. İşte tabii ki, işverene onay için gidiyor. Fiyat, bilmem ne, bir sürü başka kriterle ilgili olarak. Bu tamamen böyle ilerleyen bir süreç Biz hangi yolda daha sürdürülebilir oluyoruz gibi, her bulunduğumuz durumda, öyle bir sorgulamada olmuyoruz. Ama, her zaman dediğim gibi, alt yapıda, hep, israf etmeden uzak tarafta, geleneksel yöntemlerle ilerlemeye çalışıyoruz. İşte, geleneksel yöntemler dediğim de, burda en yakında, en kaliteli, en doğru ne varsa. Ama işte, çok özel bir projedir. O çok özel bir projenin bir duvarı vardır. Çok özel olmasını istiyorsunuzdur. Diyelim ki içerde. Onun için de, bir sürü firmalarla görüşürsünüz. Ve cidden, işte Güney Amerika'da üretilen bilmem ne duvar kağıdının o projeye çok önemli birşey katacağına inanırsınız ve onu seçeriz. O başka bir konu. Benim genel olarak çizmeye çalıştığım çerçeve, biraz daha mimari yapıları, yani yapının kendisini oluştururken, bir şekilde, bilinçli olmasa da, alınan eğitimden ve dünya görüşünden kaynaklı olarak, daha böyle yerele ve doğala, yani doğal demeyelim de ona ama, biraz daha yakına ve kolay ulaşılabilene , hani slow food un daha böyle architectural olanı, slow material gibi birşey diyebiliriz.

- Bir binanın sürdürülebilirlik özelliklerinin, o binanın parasal değerini nasıl etkilediğini biliyor musnuz?

Eğer bu yine sertifika alınacak bir binaysa, sürecin çok uzun meşakkatli ve daha maliyetli olma olasılığının olduğunu düşünüyorum. Binanın sonuç değerine etkisi dersek ise, şu anda, böyle bir satış politikası olduğu için, muhtemelen bir reklam, o da bir artı değer katıyor olabilir. Birkaç yıl once bu sanki biraz daha fazlaydı gibi hissediyorum. Daha bir popülerdi. Yok altını var. Kırmızısı var. Yok biz de BREEAM var. BREEAM daha havalı. Şu son birkaç yıldır, işverenlerden hiç duymadım. Hiç. Son birkaç yıldır projelerimizin hiçbirinde sertifika konusu gündeme gelmedi.

- Daha once ofis binalarından mı sertifika almak yönünde bir talep gelmişti?

Biz de, ofis binasına değil, daha böyle küçük ölçekli ve prestij yapılarına diye hatırlıyorum. Konut değildi hiçbirisi. Böyle biri bir çocuk merkeziydi. Birkaç senedir de böyle birşey duymadım. Konu sanki, çevrede de yok.

- Sabah bir değerleme uzmanıyla görüşüyordum. Onlar şöyle birşey söylediler. Biraz yabancı yatırımcı çekilmiş galiba ülkemizden. Biraz yabancı yatırımcıların aslında piyasaya girmesiyle gündeme gelmiş. Daha sonra onlardan görenler de bir talep oluşturmuş. Şimdi yabancı yatırımcı da çekilince..

Ben şu an çok sezgisel olarak söyliyim. Belki de bizim türk yapısındaki birşeye böyle çok rağbet, sonra modası geçince de hiç umursamamak, bence bu da bir neden olabilir. Bunun çok akılcı olmayan, bizim toplumsal yapımızla da bir ilgisi olabilir diye düşünüyorum. Çünkü bunu konut reklamlarından anlayabilirz bence. Onlar bir ara bu sertifikalrla çok reklamlar yapıyorlardı. Şimdi, kimse bahsetmiyor bile.

- (Sürdürülebilir) tasarım kararlarınızın maddi endişelerle kısıtlandığı, sınırlandırıldığı oldu mu? Yatırıcılar, yükleniciler, banka veya sigortacılar tarafından?

Buna genel bir cevap vereyim. Herhangi bir tasarım kararımız tabi ki maddi gerekçelerle kısıtlanıyor. Bu her an her zaman oluyor. Her projede her alanında.

- O zaman sürdürülebilirlikle ilgili sorabilir miyim? Sertifikasızolsa bile, sürdürülebilir olması için aldığınız birtakım kararların kısıtlandığı oldu mu?

Kısıtlandığı olabilir ama yani bunun altında sürdürülebilirlik ana nedenimiz olmayabilir. Biz mesela %100 doğal malzeme kullanmak istiyoruzdur. Doğal ahşap kullanmak istiyoruzdur cephelerde. Ama özellikle daha, bütçeyi düşüntutmak isteyen işler, mesela konut projeleri, ya da daha küçük çaplı ofis projelerinde, ya da işverenin farklı bakış açılı olduğu projelerde, o doğal ahşabı, daha böyle ahşap görünümlü plastic esaslı ya da başka esaslı malzemelere döndürme çabaları her an her projede olabilir. Ama bunu temelinde, sürdürülebilir malzeme kullanalım gibi bir tezimiz ve bir kaygımız olmuyor. İşte mimar olarak, aldığımız eğitimden, mış gibi görüneni değil de, gerçeğini kullanma hissiyatında oluyoruz ilk etapta. Ama o başka yerlere evrilebiliyor proje süresince. Bunun bir nedeni bakım da olabilir. Ama sonuçta daha az bakmak istiyor. Yani daha az para harcamak istiyor işveren. Bazı durumlarda tabi ki kısıtlanıyor. Ama bunun ana nedeni sadece sürdürülebilirlik olmuyor.

- Bu noktada sertifikasyonların aslında faydalı olacağını düşünüyor musunuz?

Ever, düşünüyorum. Mecbur bırakıyor çünkü sizi.

- Algısal yanlış anlamalar, önyargılar dolayısıyla kısıtlandığınız oldu mu? Sürdürülebilir tasarım kararlarınızla ilgili. Mesela birşey aslında pahalı değildir, aslında siz ekonomik birşey öneriyorsunuzdur ama biri onun bir şekilde çok pahalı birşey olduğunu düşünüyordur.

Olabilir, bunlar olabilir. Piyasada bir şekilde pahalı ve zor ulaşılabilir gibi bir imajı oluyor bazı ürünlerin. Ama gerçekte, öyle olmayabiliyor. Zaten mimarların görevlerinden biri de bu. Geliyorlar, bir sürü firmalar kendilerini anlatıyorlar. Şöyle üretim yapıyoruz. Böyle iyi, böyle ekonomik. Biz de deniyoruz. Bakıyoruz.

Numunelere bakıyoruz. Fiyat alıyoruz. Eğer bizim de aklımıza yatıyorsa ve o projede de uygun olacağını düşünüyorsak, tabi ki öneriyoruz.

- Sizin mimar olarak, iyi ve incelikle tasarlanmış bir projeden beklentileriniz neler?

Ofis olarak söyleyeceğim. Öncelikle, herhalde projenin o yerde doğru kurgulanmış olması, bizim için önceliktir. Kendi bulunduğu yerde, doğru konumlanmış, fonksiyonları doğru çözülmüş, aynı zamanda da , tüm bina bitişinin doğru detaylarla sonlandırılmış olması bizim için en önemli şey. Bizim ofisimizin en büyük dertleri bunlardır. Yani iyi bina, iyi detaylarla çözülmüş binadır mottosu vardır. Yani böyle uçan kaçan detaylar, şekilsel dertlerden çok, tabi ki çok şekilsel fikirlerimiz de olabilir ama, sonuçta, en çok önem verilen şey doğru detaydır. Binanın doğru finishleri olmasıdır ve işleyişinin doğru oturtulmuş olmasıdır. Bunlar eğer doğru mekan çözümleri ve detaylarla bitmiş bir binaysa, zaten her türlü görevini yerine getirmiş oluyor. O iyi bir bina bizim için.

- Hangi kanallardan, kaynaklardan mimari ile ilgili bilgilerinizi güncelliyorsunuz?

En çok güncel yayınlar, yeni projeler, dergilerden. Her zaman bizim ofisimizin önceliği projeler. Yani şöyle bir ofis değiliz biz. Daha teori kısmına kafa yoran ve onunla çok haşır neşir olan bir ofis değiliz. Daha çok uygulama, projeler, tasarım yaklaşımlarıyla ilgileniyoruz. Bunların da yolları basılı kaynaklardan çok faydalanmaktan geçiyor. Özellikle ofisin daha eskileri, bir derdi olunca dergi bakar. Bizim patronlar da hala dergi bakar. Ama aynı zamanda internet de geniş bir dünya. Ama hep proje üstünden ve yine önemli bir kaynak. Hep firmalarla sürekli iletişim halindeyizdir. Yani, yeni malzeme ne çıktı. Yeni teknoloji ne var. Şu an işte cephe sıvalarında neler var falan, bunları hep çok merak ederiz. Çok ilgileniriz. Firmalarla çok sıkıdır ilişkilerimiz. Malzemeye çok önem veririz. Onlar da hep gelmek isterlermimarlık ofislerine. Biz de hep Kabul ederiz, çok dinlemek isteriz.

- Bir projeden beklentileriniz müşterinin türüne gore değişiklik gösteriyor mu? Aslında biraz bahsetmeye başlamıştınız. Bir prestij projesiyse, çocuklar için bir merkezse farklılıklar olduğundan bahsetmiştiniz. Ne gibi farklılıklar oluyor?

Standart bir cevap yok. Sonuçlara bakarsanız, bu böyledir, şu şöyledir diyemem ama şöyle bir kaba çerçeve çizebilirim. İşin gelişi, zaten bir işverenin talebiyle başlıyor. Yani bir talep yoksa, öyle bir proje yok. Biz şöyle bir ofis değiliz. Bir takım ütopik projeler üretip te, ortaya atalım. Öyle birşey yok. Biz de hep iş var. Somuttur. Patronlarımız çok somut bakarlar. Mimarlığa da öyle bakarlar. Gerçek olarak bakarlar. Oyüzden detay detay herşey malzeme detay proje. Hep böyle bakarlar. Oyüzden iş gelir, işverenle birlikte, o işverenin, kafasındaki fikirlere, hayallere cvp verecek şekilde tabi ki, bazen, projenin o hayallerden farklı ihtiyaçları da olduğunu düşünebiliriz. Ama bakın böyle de birşey bu projeye çok şey katabilir diyebiliriz. Tamamen contextle ilgili aslında. O durumla ilgili. Hem işverenle , hem projenin kendisiyle ilgili. Bazen çok açık fikirli çok farklı şeyler yapmak isteyen müşteriler olur, ama proje o kadar açık fikirlere cvp verecek bir proje olmayabilir. Yani daha kısıtlı bir arsadadır. Çok böyle uygun değildir. Belki o zaman o işverene biz başka şeylerle cvp veriyoruzdur. Işte malzemeyle, bir iki başka detayla. Ama bazen de işveren çok açık fikirli değilmiş gibi görünebilir. Ama proje başka şeylere açılırsa, daha farklı bir boyuta gidiyor olabilir. Biz onu görüyorsak mutlaka anlatıyoruzdur sunuyoruzdur.

- Tam böyle bir sorum vardı. Şey diye soruyordum. İkna etme ne kadar olabilir?

Olabilir. Biz bunu sunarız. Derdimizi anlatırız. Ve gerçekten de o işe katkısı olabileceğini düşündüğümüz noktalar varsa da, bazen ciddi anlamda diretiriz de. Ama o işte karşılıklı bir anlaşma konusudur. Bazen anlaşamazsınız. Bazen de işveren de buna hem fikir olur. Sizin yanınızda durur. Bazen kavga dövüş birşeyleri yapmaya çalışıyoruz. Oluyor yani böyle şeyler. Dayatıyoruz yani bu böyle olmalıdır diye. Bazen de buna değmeyen durumlarda da, her projenini kendi kapsamına gore değişebiliyor, çok böyle birşeyler kovalamayabiliyoruz. Yine kendi içinde doğru düzgün bir iş çıkartıyoruz ortaya. Ama zaten işin kendi içinde de çok farklı, sosyal durumlar, ya da başka şeyler gerektrmiyorsa da, kendi içinde namuslu bir bina yapıp çıkıyoruz. Ama

dediğimiz gibi, bir derdimiz varsa işverene onu anlatıyoruz. Inanmadığımız birşeye, bir dayatma olur işverenle, yani bu böyle olsun. Olabilecek bir durumsa olur. Olamayacak bir durumsa da onun neden olamayacağını anlatırız. Ama burden da şöyle birşey çıkmasın. Biz işte mimarlar olarak herşeyi biz yönlendiririz gibi bu ofisin bir mottosu yoktur. Çok dinleriz ve anlamaya çalışırız. Çünkü sonuçta son kullanıcı ya da işveren neyse, onun istekleri ve ihtiyaçları da önemlidir. Tasarım kriterlerinin üst sıralarında gelir. Ama bu demek değildir ki işte, herşeyi de o yönlendirir. Bazen çevredeki insanlar için bir fayda görüyorsak, ona mutlaka bu tip şeyleri öneririz.

- Böyle özel durumlar için, böyle durumların artmasını, sertfikasyonlar ya da birtakım kontrol mekanizmaları arttırır mı sizce?

Yani en büyük dert bize gore zaten imar kanunları. Yani onların bir kere doğru yazılıp, doğru uygulanıyor olması lazım. Türkiye'deki bütün bu tuhaf yapılaşmanın temelinde, doğru şehirleşme olmaması var. şehircilik anlamında herşey yanlış. Bir imar kanunları var her şehirde her bölgede. Hiçbirisi doğru düzgün uygulanmıyor. Zaten doğru düzgün yazılmamış. Zaten yanlış çoğu mantıksızlıklarla dolu kanunlar. Mantıksızlıklarla dolu yönetmelikler. E bunlar zaten çok kısıtlıyo ve sınırlandırıyor mimarı, tasarımı. Temeldeki problemin aslında bu olduğunu düşünüyoruz. İşverene olduğunu düşünen bir ofis değiliz biz.

- Belki sizin işverenleriniz de, sizi tercih ediyorlar sonuçta. O kadar çok ofis var ki. Ortalamanın üstünde olabilir.

E tabi, belli bir bilinç seviyesinin üstünde olduğunu düşünüyoruz tabi ki. Yani en azından, biz ve bizim gibi ofisleri tercih ediyorsa bir takım insanlar, belli bir hizmet kalitesinin üstünü hedefliyordur. Yoksa zaten buralara gelmez. Çok daha hızlı, çok daha ucuz, standart yöntemlerle halledebilir. Ama buraya gelip, bu kapıyı çalıyorsa, belli ki belli bir hizmetle derdi var. O hizmeti almak istiyor. Bizim gibi bir sürü iyi tasarım ofisi var. oralara gidiyor.

- Piyasa bina tasarımında, radikal, öncü, deneysel ve çoğulcu yaklaşımlara ne kadar açık ve hazır? Eğer öngörüsü yüksek, alışılmadık, daha once bir benzeri inşa edilmemiş olan bir tasarım yaparsanız o projeyi inşa ederler mi?

Yine aslında hep bence aynı. Türkiye deki imar kanunu ve şartlar izin verdikçe, bizim nispeten enteresan binalarımız vardır. O standartların dışında olan. Turkcell binası aslında öyle bir bina mesela. İşte 10 yıla yaklaşmıştır bittiği. Bu öyle bir binadır mesela. Tuz ambarı, çok farklı ve öncül bir iştir. Türkiye ölçeğinde söyliyim.

- İmar kanunu, ne gibi bir kısıtlama oluyor da, onları aşarak bu projeler gerçekleşebiliyor?

E şimdi şöyle, en basitinden, eni boyu yüksekliği gibi sınırlar oluyor İstanbul'da özellikle. Çekme sınırlarının hadi kendi içinde bir mantığı vardır ama işte. Belli bir uzunluğun üstünde bina yapamıyorsunuz. Belli bir yerde kesmeniz lazım. Konsol mesfeniz sınırlı. İşte yükseklik, gabariler zaten doğru bir mimari yaklaşımla, gabariler zaten çevresinden çok farklı bir yere varmaz. Onlar yine belli anlamda sınırlı. Siz şimdi 4 köşeden heryerden sınırlısınız. Mimariye de farklılık ve çağdaşlık katan şeyler aslında bu detaylarda gizli oluyor. 1.5 metre konsol, ne bileyim, açıklık yapabileceğiniz yüzey şeyi belli. Işte balkon m2 siüç aşağı beş yukarı belli. Çatı eğimlerine kadar, belli bir kriterler ve özellikle belli bölgelerde sınırlar var. E öyle olunca, mimarlar napıyorlar. İşte o sınırları kırabilecek birtakım detaylar kendilerince uyduruyorlar. Çünkü işte %33 eğimli kiremit kaplama, kat yüksekliği sınırlı bir bina diyince zaten ne olduğu, üç aşağı beş yukarı eblli oluyor. O kütlesel olarak bazı durumlarda size kesinlikle tatmin etmiyor. Onu kırmak için de, birtakım üçkağıtlar bulmaya çalışıyorsunuz mimar olarak. Bazen hani belediye projesinde farklı, yerinde farklı uygulamalara sebep olabiliyor. Çoğunda böyle.

- İyi tasarlanmış bir proje yapmanın ekonomik faydaları avantajları nelerdir? Bu faydalar tasarım kararlarınızı nasıl etkiliyor?

Iyi proje bizim ofisin mottosundan gelerek, iyi proje doğru tasarlanmış, doğru işleyen, iyi malzeme, doğru detay. Tabi ki işverene süreç içinde, projeye, büyük katkısı olan bir durum bu kriterlere baktığımız zaman. Yani projeyi, doğru detaylarla ve doğru malzemelerle çözdüğünüz zaman, zaten uzun vadede, işverene, çok iyi çalışan bir makine teslim etmiş oluyorsunuz. Akmayan, kokmayan. Bakımı, ısınması, soğuması hesaplı. Yani bunlar, mühendislerimizle beraber yaptığımız şeyler ama. Mimari olarak bu duruşa sahip olduğunuz zaman, yani aman bu çok havalı bir bina olsun da, biz yine de böyle bir detay yapalım. Böyle birşey söz konusu bile olamaz bizim ofisinizde. O herşey bir makine gibi düşünüyorsak, onun sürdürülebilirliği bu anlamda önemlidir tabi ki. Bakımı. O malzemenin eskimesi. İleride ne olacağı. Tamam bunu koyuyoruz şimdi buraya ama 3 sene sonra neye benzeyecek. Tekrar değiştirmemiz gerekicekse o zaman böyle bir yola hiç gitmiyoruz. Yani o anda fotoğraf olarak nasıl durduğu değil. O binanın süreç içinde neye dönüşeceği. O binanın nasıl kullanılacağı.

- Fotoğraf olarak nasıl durduğuyla ilgili peki, bazen müşteriden ben bu şekilde görmek istiyorum gibi talep oluyor mu?

Tabi ki oluyor. Renkle ilgili olur, malzemeyle ilgili olur. Olabilir. Bazen ona yaklaşan bizim de fikirlerimiz olabilir. Bazen çok aykırı olabilir. Onu tabi ki yapmayız. Olması gerekeni anlatmaya çalışırız. Özellikle bu bir mimari kararsa, yani kütleyle, cepheyle, oranlarla ilgiliyse çok fazla ödün vermek istemiyoruz tabi ki.

- Riskler ve dezavantajlar? Iyi tasarlanmış bir proje yapmanın riskleri ve dezavantajları. Bu riskler bazen tasarım kararlarınızı etkiliyor mu? Ya bu kadar bütçesi yüksek bir proje yapmak istiyorsunuz ama, biz satışlarda ya da kiraladığımızda bunun karşılığını alamayız gibi.

Bunlar zaten çok baştan, bütçeyse konu en baştan konuşuluyor. Tasarım süreci şöyle işliyor. Ilk brief I aldıktan sonra müşteriden, üç aşağı beş yukarı biz sınırlarımızı anlıyoruz. Ama bir ön sunum yapıyoruz ve eğer bu bütçenin kritik olduğu ve kapsamının da çok bütçeyle birebir ilgili olduğu bir işse, zaten o ilk tasarım aşamasından sonra kaba bir bütçe çalışması yapılıyor. Yani, cephedeki malzeme

kararları, binanın formu, bunların hepsinin bütçeye etkisi. Eğer o ilk yaptığımız fikir, karşı tarafta çok alakasız bir bütçenin sonucuysa, ordan geri adım atmak durumunda tabi ki kalıyoruz. Çünkü sonuçta talebin ne önemli olduğu önemli. Ama genelde bunlar hep paraler şeyler çıkar. Çünkü o bir tasarım kriteridir. Ve yola çıkarken o kriter hep orda durur. Yani biz ondan bağımsız uzayda ve kendi zevkimize gore birşey hiçbir zaman yapmıyoruz. Kriterleri koyuyoruz. Işte yönü nereye bakıyorsa o arsanın, kuzeye yatak odası koymamaya çalışmak gibi, bütçenin de ne olduğunu, ya da o projenin kapsamının ne olduğu kafamızda bir yerde yazıyor. O kriterlerle zaten yola çıkılıyor. Ve sonuç ona gore biraz evriliyor. Hala bir fikir ayrılığı oluyorsai tabi ki ordan başka türlü birşeye dönüştürme durumuna da geliyoruz.

- Yeşil bina konseyleri ve sertifikasyonlar, gene anlamda sürdürülebilir mimariyi nasıl etkiliyor? Yardımcı mı oluyorlar? Yoksa mimarları acaba sınırlandırıyorlar mı?

Ofis olarak, çok böyle kafa yorduğumuzu söyleyemem. Ama şu anki dünyadan bakarsak, daha medeni avrupa ülkelerinde bunların büyük katkısını önümüzdeki yıllarda özellikle daha çok görmeye başlayacaklar diye düşünüyorum. Çünkü bunu insnalardaki bilinç, orda kendi evlerinden de sorumlular ya insanlar, ve kendi evlerini de kendileri finanse ederek yapıyorlar, bu bilinç ve devlet politikalarında da bunlar desteklendiği için yani sertifikalı yapılara birtakım finansal destekler vs. Bu bilinç, sonuçta daha bilinçli bir insan kitlesi, uzun süreçte bu malzemeleri mecburen kullanıp, bir sure sonra da bunları farkında olarak kullanıp, e ister istemez dünyaya bir katkıda bulunuyorlar. Şunu çok görüyoruz. İşte kendi enerjisini üreten ev. Bence en önemli şey bu arada. Konutta enerjiyi dönüştürebilmek ve enerjiyi üretebilmek en önemli kriter bana gore. Çünkü işte bilmemne ahşabındansa, tabi ki o ahşabın işte en yakın yerden en kolay gelmesi, o zaten doğru birşeydir. Ama asıl konu enerjiyi üretmek ya bu dünyada. Gaz salınımına en çok neden olan şey falan. Onu ciddi anlamda uyguladıklarını görüyoruz. İnsanlar kendi bireysel evlerinde bile. Yağmur suyunu bilmem naapıyo, onu ordan tuvalete aktarıyo, enerjisini ordan topraktan alıyor. Bunları en işte İngiltere'de bile, en soğuk en güneşten az faydalanan ülkeler bile güneş panelleriyle kendi enerjisini üretmeye çalışıyorlar. Üretiyorlar ve evlerine de bunu uyguluyorlar. Ve bunun uzun süreçte ben mutlaka geri dönüşünü

alacaklarını düşünüyorum. Zaten bu yöne doğru yıllardır bunu uyguluyor bu ülkeler. Kendi kanunlarına ve imar standartlarına bunu getirmiş durumdalar. Bizde bu olmadığı sürece işte LEED sertifikalı evler daha çok satıyormuş. Vs. Sertifikalar bu anlamda katkı sağlamaz. Bunun devlet politikası olması lazım. Sertifikalar sadece belki bu sertifikalar devletle ortak çalışabildikleri ülkelerde bu anlamda bir fark yaratabiliyordur. Ama bizim gibi ülkelerde işte bir satış politikasının dışına çıkamadığı için de orda kalıyor ve sürdürülemiyor. Modası geçiyor. Yani sürdürülebilirlikle yola çıkan birşey kendini sürdüremiyor. Çünkü bu bir devlet politikası. Bunun başka bir yolu olamaz. Nasıl depremden sonra yeni bir yönetmelik yayınladılar ve artık o static çerçevenin dışına kimsenin çıkamadığını düşünüyoruz, o yönetmeliğin de ne kadar doğru ve sağlıklı yazıldığı soru işareti bu arada, ama böyle bir konu var. Di Mi? Bunundışında birşey yapamıyorsunuz. Artık belli bir donatı standardı getirildi, belli bir beton standardı getirildi vs. e bunun gibi, bu standartları mimariye, bütün şehir hayatına getirmek zorunda. Onu getirmediği sürece, işte leed sertifikalı bina daha çok satıyormuş gibi bir duyguyla bu bir yere kadar. Ya da çok sosyal sorumluluk derdi olan vakıflar, kurumlar, kuruluşlar, kendi bireysel dertleri ve dünyaya bir katkı sağlamak istedikleri için bunu yapıyorlar. Bize daha once mesela böyle bir oluşum kapımızı çaldı. Çünkü temeldeki derdi zaten buydu. O işte bir çocuk merkeziydi ama hayata geçemedi maalesef. Ama böyle iyi niyetli projeler var. Fakat ülkenin geleceğini değiştirme konusunda ne kadar etkilidir?

- Ben aslında çok etkili olacağını düşünüyorum.

Bu şey gbi. Bireysel bir iyilik gibi. Yani iyi insanların, dünyayı daha iyi bir yer haline getireceğine ben de bireysel olarak inanıyorum. Kötü insanların kötülüğün sürdürülebilir olduğunu düşünmüyorum. Hani iyiliğin temelde, sürdürülebilir olduğunu düşünüyorum. Kötülüğün sonu var. Hepsi ölüyor ve sonunda kötü olarak anılıyorlar. Ama bir tane iyi birşey, çevresini iyi anlamda etkileyebiliyor. Belki birtakım böyle filizler vardır Türkiye'de. Ama ben yine de söylüyorum, bunlar kanunlar, imar kanunları, devlet politikası, bir takım yönetmeliklerle desteklenmediği sürece sürdürülebilir olduğuna çok inanmıyorum. Çünkü Avrupa ülkelerinde böyle olduğu için.

Interview IX

Interviewee: Istanbul Based International Real Estate Investment and Development Company – CEO

Place: Istanbul

Date: 22.08.2017

- Yatırımcılar projelerine neden sertifika alır? Hangi projeye hangi sertifikayı alacağınıza nasıl karar veriyorsunuz?

Yatırımcılar tabii, her zaman sertifika almaz. Sertifika dediğin, tabii herhangi bir yapı yapmak için gerekli izinleri alıyorsunuz. Yani ruhsatını alıyorsunuz. Bunun dışında, resmi bir mecburiyet yok. Sertifikayı niçin alırsın, pazarlamak için alırsın. Ne biliyim, şimdi İngiltere'de, Amerika'da, bazen Türkiye'de organizasyonlar var. Bir kısmı, hakikaten düzgün organizasyonlar, üniversitelerin falan organize ettiği. Bir kısmı da para verip, işte bilmemne dalında birinci oldun diye sertifika veren şeyler. Tabii onlar doğru değil ama işte.. Mesela geçen de Hurriyet Gastesinin bir City Awards gibi birşey, ismini tam doğru söylemiyor olabilirim. O mesela ciddi bir şeydi. Hatta bakan da geldi. Büyük şirketler de vardı. Şimdi bizim bu projede, ofis açısından da 1. Oldu. Ama hakkaten de zaten, iyi bir proje. SOM design etti bunu Amerikalı. İngiltere'de şeyi var. Öyle bir sertifika alırsanız, ve ya ödül alırsanız, tabii o pazarlamanızda faydalı olabilir. Ha tabii bir de sertifika olarak şey olabilir, yeşil binalarla ilgili, LEED sertifikası var. Mesela bizim burasının hedefi, LEED Gold veyahut ta Platin almak. Yani Gold garanti alacak da, belki Platine de uyabilir. Tabi böyle sertifikalar, yabancı alıcılar için önemli. Onların böyle bir sertifika olması, kiralamalarında veya satmalarında daha kolaylık sağlayabiliyor.

- Çevreci sertifikalar almak istediğinizde, size buna iten basilica etmenler nelerdir?

Tabii ki, bunun çevrecilik tarafı da var. Yani onu da söylemek lazım. Güzel birşey falan. Yani, bu çağda artık hiçkimsenin çevreyle falan ilgilendiği yok. Amerika'da,

ondan sonra, bir sürü yatırımlarını veyahut da finansal desteğini çekti. Tabii ki, bizim gibi insanlara rahatlık veriyor. Hiç olmazsa biliyorsunuz ki, yaptığınız şey çevreye o kadar zarar vermiyor. Veyahut da, onu minimuma indirmek için her türlü gayreti sarfediyorsunuz. Ama şeyin esas projecilerin, veyahut da müteahitlerin en büyük hedefi burda, maalesef, pazarlama meselesi. Yani satışta veyahut da kiralamada kolaylık sağlaması.

- Sertifikalardan bağımsız olarak, yatırımcının mimardan ve mimari tasarımdan en temel beklentileri nelerdir?

Bir projenin güzel olmasını tabii ki istersiniz. Ama yani, sadece güzellik yetmiyor. Vermiş olduğunuz, istemiş olduğunuz fonksiyonların iyi çalışmasını istersiniz. Tabi ki, bu projelerin çoğu, pazarlama için, satma veyahut da kiralama için yapıldığı için, piyasaya da uymasını istersiniz. Ama burdaki tabii ki en büyük şey, esas developer dediğimiz, geliştirici olarak, ki bizim şirketler öyle şirketler, mimara kendisi vermesi lazım. İşte şöyle 1+1 yap, 2+1 yap. Şundan %10 unu böyle yap, %30 unu böyle yap gibi, brief ini, istediği şeyi, projeyi iyi tariff etmesi lazım. Mimarın da tabii, ondan sonra piyasaya uygun, veyahut da insanlarınyaşamına uygun.. Konut yapıyorsunuz, insanların kolay yaşayabileceği, uygun yaşayabileceği projeler geliştirmek lazım. Bazı mimarlarda, isim vermiyim, bazı şeyler var. Ne biliyim, mesela, belli bir salon m2 sini mesela, 40 m2 nin altında yapmak istemiyor. Normal güzel bir salon da o civarda. Yani siz daha çok ufak şeyler, üniteler yapmak istiyorsanız, o tabi ki inmek zorunda. Ama mesela ne biliyim işte, yatak odasını belli bir ebadın altında yapmak istemiyorlar. Piyasa iyice ufaltıp, toplam fiyatını daha ucuza düşürmeye çalışıyor. Ama o zaman tabi ki, yaşamdan taviz vermek durumundasınız. Tabii biraz İstanbul'da nüfusun çok artması, yerlerin tabi ki, azalması dolayısıyla. Şehir çok büyüdü, nüfus arttı. Yer bulmak zor. Onun için, eski geniş evlerde yaşama şeyi, tabii gittikçe küçülüyor. Ne biliyim İngiltere'de, ufacık yerde yaşarsınız. New York'ta öyledir, çok pahalıdır. İstanbul'da o seviyelere geldi. O bakımdan tabii ki ufalıyor. Ama ufalırken, insanların yaşamasını kolaylaştıracak şekilde bir proje yapılmasını istiyoruz. Türkiye'de bir sıkıntı var. Mimarlar çok matematik kafasıyla yetişmiyorlar. Hesap tarafları biraz zayıf oluyor. Fonksiyonu önde tutmaları gerekirken, estetiği önde

tutup, fonksiyonu ikinci plana atıyorlar ki, bence doğru değil. Yani böyle acayip şekilde, gözünüze hoş gelecek bir bina design edebilirsinz ama, o tabii ki, fonksiyona tam geçemediği için, güzel, dışardan baktığınız zaman güzel görünen bir binanın, çok Kabul edilememesi lazım. Yani illa güzel bir şekilde olması, tabi ki önemli. Yani bakınca gözünüze hoş görünmesi lazım ama, hangi fonksiyondaysa, o fanksiyonu da tam olarak yerine getirmiş olması lazım. Yani fonksiyondan da taviz vermemek lazım.

- Çevreci olmak, iyi bir tasarıma sahip olmak, hangi riskleri nasıl azaltıryor? Sertifikalar riskleri azaltıyor mu? Azaltıyorsa, nasıl azaltıyor?

Valla o kadar çok, şeyettiğine inanmıyorum ben. Siz, ondan sonra, güzel projeler yapıyorsanız, daha evvelden yaptığınız projelerden de insanlar memnunsa, onlar sizden yine ev almak, ofis almak ve ya ne yapıyorsanız onu almak istiyor. Tabii, bu sector, diğer endüstriyel yatırımlara gore daha fazla kar getiren bir sector. Onun için de, herkese cazip geliyor. İnşaattan anlayan, mimar olan, mühendis olan, olmasın, hiç farketmiyor. İki kuruş parası olan, hemen bir arsa alıp, ondan sonra birşeyler yapıp, şeyetmeye girişiyor. Tabii ki, bu işi iyi bilmiyorsa, tabi bunun bir de belediye tarafı var, ruhsat alma tarafı var, projeyi geliştirme tarafı var. Yani iyi bir mimarla çalışıp, şeyetmeniz lazım. Bunları iyi becermeyip de, güzel birşey çıkaramayına, çoğu batıyor. Onun için insanların, biryerden konut alması, veya başka bir gayrimenkul alması için, dikkatli olması gerekiyor şimdi. Çünkü parasını yatırıp da, parasını alamayan, bir sürü insan var. Bir sürü kooperatifler kuruluyor. Amatör kafayla giriyorlar. Ne plandan ne imardan anlıyorlar. Ne inşaat yapımından anlıyorlar. Ondan sonra da başarılı olamıyorlar. Çoğu insan da parasını kaptırmış oluyor. Onun için sertifikalar bence çok önemli değil. Ama siz iyi bir müteahitseniz, iyi projeler yapmışsanız, iyi bir isminiz varsa, insanları memnun etmişseniz, insanlar gelip ondan alıyorlar. Sertifikanız var mı yok mu, diye kimsenin baktığını zannetmiyorum. Bir de şey var, şimdi tabii ki, son günlerde, ekonomi ve politik durum çok parlak olmadığı için Türkiye'de, projelerde de satışlar kötü. Eğer iyi bir müteahit değilseniz, nakit planlamanızı iyi yapmadıysanız, çoğu çok zor durumda ve batmak üzere, ve batıyor. Onun için, istediğiniz kadar sertifikanız olsun, bunun bir kurtarıcı tarafı yok. Yani çevreye bakmışınız falan kimsenin aldırdığı yok, öyle şeyler önemli değil. Bence iyi bir iş yapmak, herkesi

memnun etmek. Bir de tabii şöyle, yatırım olarak da birisi bir para yatırıp da birşey aldığı zaman, İstanbul'da bir avantaj vardı, diyeyim. Herhalde devam edecektir belli bir zaman sonra. Ne alsanız bir müddet sonra fiyatı artıyor. Arttığı için de, siz 10 liraya alıyorsunuz, 20 liraya satacak duruma geliyorsunuz. Paranızı hiç başka şekilde, daha iyi değerlendirme imkanınız yok. Yani dolara yatırsanız, dolar artıyor ama bir gün pat diye artıyor, bir gün düşüyor. Yani biraz kumar gibi birşey. Ama burda iyi bir yerde, iyi birşey alırsanız, İstanbul'da her zaman 2 misli, 3 misli, 5 misli, 10 misli artan projeler var. Yani yerine gore, ondan sonra, değişiyor. Bu tabi ki, sizing yaptığınız projeler güzelse, ne biliyim, yakın zamanda problem olmuyorsa, işte orası akıyor burası kokuyor gibi problemler olmuyorsa, o zaman tabi sizden alan şeyler artıyor. Onun için, performans, o sertifikalardan, herşeyden daha önemli.

- Yani önceki yapılan işler, referans çok önemli.

Evet, tabii. Ona bakıyorlar, kesin bakıyorlar. Bir de mali durumunuz nedir, onu bile inceleyenler oluyor. Çünkü dediğim gibi, bir sürü insan, çıkıyor ortama. Ama, paraları yok, ve yahut da hesabı iyi bilmiyorlar. Ondan sonra çok ara kazanacağız diye bu işe giriyorlar ve maalesef sonu kötü oluyor. Sadece yatırımı yapan için değil, bir de ona inanıp da, ordan yatırım yapanlar için kötü oluyor.

- Mesela Amerika'da yeşil sertifikaların çıkışı, mortgage kriziyle birlikte konut satamamaya başlamalarıyla, daha çok ofis binalarına yeşil sertifikalar almaya başlayarak, ofis satışına bir meyletme yönelme gibi birşey oluyor. Yani ekonominin inişleri, çıkışları olduğu zaman, sanki böyle bir düşüş olduğunda, bu maintenance costlarımızı nasıl ödeyeceğiz, elektrik faturamızı vb. nasıl ödeyeceğiz dediğinde, teşvik alır mıyız, vergi indirimi alır mıyız gibi konular gündeme geldiğinde, sanki sertifikalar da onlarla beraber gündeme geliyormuş gibi birşey düşünüyorum. Türkiye'de de bir ara daha çok sanki gündemdeydi. Türkiye'de de o eski popülerliğini kaybetti gibi geliyor sertifikalar.

Evet anladım. Türkiye'de sertifikaların getirdiği bir avantaj yok size. Yani semin söylediğim pazarlama avantajından çok yok. Size vergi indirimi vey a herhangi birşey

kazandırmıyor. Böyle birşey yok. Amerika'dakini doğrusu bilmiyorum. Tam olarak incelemedim. Ama Amerika'nın şeyi biraz farklıdır. Orda mortgage kredileri çok ucuz olduğu için, Türkiye'de aylık faizi %1 diyelim. Yani %12 leri geçer. Onun için normal faiz oranı gibi birşey oluyor aşağı yukarı. Ama Amerika'da öyle değildir. Yani Amerika'da paranıza faiz de yok ya, ama, çok düşük olduğu için, herkes Amerika'da mortgage krediyle alır. Hiçkimse, bizimki gibi oturup da, parasını biriktirip almaz. Son zamanlarda bizde de mortgage kredinin çıkmasıyla biraz farketti ama, faizleri yine de önemli miktarda. Yani siz, üstüne koyduğunuz zaman, peşin almayla arasında epey önemli fark oluyor. İşte vadesine bağlı. Şimdi 20 yıllık krediler diyorlar. Normalde 5 yılın üzerindeki krediler, size baya zarar verecek cinstedir. Yani öyle 5 yıldan fazla almamak lazım aslında. 10 yıl, 20 yıl kredi var. hayatınız boyunca ödeyeceksiniz gibi birşey çıkıyor ortaya. Onun için Amerika'nın şeyi farklı. Amerika o sırada tabi ki, tahminen söylüyorum bunu, o LEED Gold filan, veyahut da LEED sertifika alanlara şey verebilir. Bunlar da, mesela ne bileyim, ofis binası yapıyorsunuz, LEED sertifikanız var. Onu kiralayan şey de reklamını yapıyor işte. Bak biz çevreye çok ehemmiyet veriyoruz. İşte binamızda da LEED Platin bilmem sertifikası var. Binayı da sırf o yüzden seçtik falan gibi, reklam yapıyorlar. Ama şey tarafını bilmiyorum. O belki bazı eyaletler de teşvikler olabilir. Onu bilmiyorum. Türkiye'de öyle birşey yok. Türkiye'de teşvikler hep bölgeye gore oldu. Ne biliyim, doğuda yatırım yaptığınız zaman, onun yatırım indirimiydi. KDV muafiyeti, harç muafiyeti gibi, ondan sonra, teşvikler vardı. Ama İstanbul'da konut veya ofis geliştirdiğinizde öyle bir şey yok. Zaten İstanbul, herkesin yatırım yaptığı yer olduğu için, onu da yapmak için bir teşvik yok.

Interview X

Interviewee: Investment Bank Employee – LEED AP

Place: Istanbul

Date: 29.08.2017

-Türkiye'de yeşil tahvil veren ilk banka sizsiniz. Süreç nasıl işliyor?

Yeşil tahvil (Green Bond) tarafında şöyle birşey var. Banka bir tane borçlanma senedi çıkartıyor. TSKB yatırım bankacılığı yapıyor. Dolayısıyla, biz de bireysel bankacılık yok. Şimdi normal bankalara bakarsanız, iş bankasına falan, mevduat topluyor. Siz banakaya faize paranızı yatırıyorsunuz, sizin paranızla onlar, üstüne biraz daha maliyet olarak ekleyip, başkasına kredi olarak veriyorlar. Konut kredisi olarak veriyor, ticari kredi olarak veriyor, finansman kredisi olarak veriyor. Genel bankaların ana çerçevesi bu şekilde işliyor. TSKB de mevduat yok. Yani siz getirip paranzı, ben TSKB de mevduata yatırırım diyemiyorsunuz. Çünkü bizde bireysel bankacılık yok. Tamamiyle yatırım bankacılığı. Yani, tamamiyle şirketlere kredi veriliyor. Ve bunlar yatırım kredileri olmak zorunda. Dolayısıyla mevduat tarafı, yani paranın akan, gelen kısmı olmadığı için, TSKB ne yapıyor. İşte IMF den, dünya bankasından ve ya Avrupa Yatırım ve Kalkınma Bankası'ndan ve ya Asya'dan alıyor bir şekilde. Ve ya Fransız Yatırım Bankası'ndan alıyor örnek veriyorum. Onlardan kredi alıp, üzerine belli maaliyet ekleyip, Türkiye'de tekrar kredi olarak veriyor. Bunların da bazı özel şartları oluyor. Örnek veriyorum. İşte bir ara yeşil kredi olanağı vardı TSKB de. Eğer siz otelinize turizm amaçlı bir yatırımı, LEED ve ya BREEAM sertifikalı şekilde bir renovasyona tabii tutuyorsanız, çok daha uygun faizle krediyi veriyordu. Böyle bir fon bulmuştu çünkü. Yani gelen fonu ne şekilde dağıtılacağıyla alakalı. Bu tamamen TSKB nin iç yapısından kaynaklanan bir şey de olabilir. Kendi normal özkaynaklarını kullandırdığı da olabiliyor. Ama eğer farklı bir fondan kullanılıyorsa, bunların her zaman kendi hikayesi oluyor. Bir ara böyle bir fon vardı. (2012). Dolayısıyla, bunlar da böyle bir fonun varlığından sonra, kendi özkaynaklarını yaratmak için, yani, ya dışardan kredi bulabilirsiniz vey a tahvil ihracı yaparsınız. Tahvil dediğim borçlanma senedidir. Siz, borçlanma senedinizi sunarsınız. Piyasadan parayı toplarsınız, o senedi kendi kredinizde kullanırsınız. Kredi vermede kullanırsınız. Biz dediğim gibi mevduat toplamıyoruz. Ordaki mantık, yeşil bond taki mantık ta buydu. Ben alacağım toplayacağım tüm parayla, yani sizden alacağım parayla yatırımcılara şunu derim. Sizden alacağım parayla ben yenilenebilir enerji kredileri sunacağım derim. Ve o yüzden yeşil tahvil olarak isimlendirildi. Önemli olan burda tahvilden alacağı parayı, yani bunu arçelik yapıyor, turkcell yapıyor, bir sürü tahvil ihraç eden şirketler var, ordan alacağı parayı, ben yenilenebilir enerji yatırımlarına harcayacağım dedi. Yeşil tahvil mantığı o.

Şimdi bizim TSKB gayrimenkul değerleme tarafına gelirsek, dediğim gibi biz iştirak ve gayrimenkul değerleme işi yapıyoruz. Berk Bey'de ve bende LEED sertifikası var. Ama Türkiye'de çok fazla uygulanabilir mi kullanılabilir mi derseniz, çok da değil. Yani ever yeşil binalar genelde sertifikalandırılıyor, ama genellikle pazarlama amacıyla kullanılıyor. Bir fiil yeşil bina olup da, işte ortak alandan bu kadar şey kazandım diyen çok çok yok şu an. En azından onu çok ölçme yönüne gitmiyorlar. Rönesans mesela, Ataşehir'deki Alliance Tower var. O LEED sertifikalı ama çok bir ölçüm kısmına bakmıyorlar. Amerika'daki konsey elbette belli bir performansa gore sertifika veriyor. Ama o sadece sertifikalandırma kısmı. Şimdi sertifikalandırdıktan sonra da, siz bu sertifikayı projelerde şey olarak kullanabilirsiniz. Bu LEED sertifikalı olacak. Normalde siz m2 ye 7TL ödemeniz gereken aidatları, ben aslında 3 tl ye düşürüyorum diye bunları pazarlıyorlar yurtdışında. Türkiye'de bunu yapmıyorlar. Ölçerek yapmıyor yani. Evet LEED sertifikalı diyor. Azalacağını söylüyor ama ne kadar azalacağı bilinmiyor.

Bizdeki amaç, daha çok alalım da bulunsun. Bir sürü puan toplayarak sertifka alınıyor. İşte Profilo falan LEED sertifikalı. Re-use yaptı çünkü. Öyle extra birşey düşündüğünü sanmıyorum. Bir şekilde almışlar, puanları toplamışlar. En basic ini birşekilde alabiliyorsunuz. İşte green wash deniyor ya.

- O zaman neden yeşil tahvil (green bond) çıkartıldı? Yani insanlar neden sertifika alıyorlar? Bir ara bir patladı, şimdi söndü. Ya da artık hiçbir reklam değeri kalmadı. Yani inşaat şirketleri çok fazla artık, bizim de yeşil sertifikamız var demiyor. Bir ara derken…

Birincisi, yeşil sertifikalı olması yabancı yatırımcılar açısından önemli. Adam globalde şöyle bir anlaşma yaparsa, sen LEED sertifikalı binalarda oturacaksın, kiralayacaksın gibi bir anlaşma yaparsa, adamlar Türkiye'de de yabancılar geldiğinde, ofis binalarını gerçekten LEED sertifikası arıyorlar. Örnek veriyorum siz kurumsal bir yere kiraya vermek istediğinizde, örneğin şişecam, iskanı olmayan bir dükkanı mağaza olarak kiralayamıyorlar. Normalde başka birisi gelip orayı mağaza olarak kiralayıp işletebilir. Belediyeden çalışma ruhsatıyla bunu yapar. Ama iskanı olmadan ben bunu yapmam diyor adam. Örnek veriyorum. Yangın yönetmeliğine uygun olmadan ben o binayı

kiralamam diyor. Global firmaların gelmesiyle zamanında, bu tarz sertifikasyonlar önem kazandı. Türklerin kendi içinde baktıklarında çok çok birşeye rast gelmedim. Hiçbir türk aa ben LEED olmazsa almam/kiralamam demiyor. Ha çok büyük yerli firmalar, bankalar, finansal kuruluşlar bunu diyebilirler. Ama böyle tekillerde o tarz bir yaklaşımları yok. Dediğim gibi daha çok global firmalarla önem kazandı. Son yıllarda, global firmaların da Türkiye'ye gelişleri azaldığı için, o konu biraz daha önemini kaybetmiş olabilir. Ama aynı şekilde, LEED alacağım, bunu bir artı olarak bulunduracağım diyenler var projelerinde.

Kağıt üzerinde, riski azaltır, kiralanma oranlarını arttırır, boşluk oranlarını azaltır, oyüzden de binanın değerini arttırır diye yazıyor yeşil binalar için. Kağıt üzerinde böyle yazıyor ama gerçek hayatta böyle birşey var mı? Ya da bir aralar var mıydı? Mesela 2012-2015 arası? O zamanlar çünkü çok daha gündemde ve modaydı.

Inşaat maaliyetleri çok büyük bir oranda arttırmıyor. Tabii hangi sertifikayı alacağınıza bağlı. LEED platiniumu alacaksanız, ayrı bir tasarıma gitmeniz gerekiyor. Yani inşaat aşamasında değil, tasarım aşamasında bunu yapmanız lazım. Ama ben basic alacağımdiyorsanız, zaten aydınlatma armatürlerinizi led kullandığınızda, yeşil pisuvar kullandığınızda ve yeşil çatı yaptığınızda zaten LEED basici alıyorsunuz. Bir tane de kapıya re-use kullanın. Tekrar kullanılan hammaddeden yaptırın, onu zaten alıyorsunuz. Yani o tasarıma bağlı birşey değil. LEED in başlangıcı. Birincisi hangi hedefle LEED almak istediğinize bağlı. Yani yeşil binayı hangi hedefle koyuyorsunuz. Ben en top ı alacağım diyorsanız, tasarımdan başlayan birşey olması lazım. Yani aydınlatmadan tutun da, binanın ısınması soğuması, çünkü en çok enerji binanın soğutmasında ve ısıtmasında harcıyoruz. Dolayısıyla, aydınlatmayla falan değil bunlar. Dolayısıyla siz dış tasarımı ve materyalleri ona gore seçerseniz, binanın soğutmasında ve ısıtmasında da, aynı şekilde enerji efficiency yi sağlamış olursunuz. Bu dediğim gibi neyi hedeflediğime bağlı.

- Neyi hedeflediğime bağlı olarak, sertifikanın seviyesine bağlı olarak, değeri değişir mi? Uygulamada değişir mi?

Birincisi satış kabiliyetinizi etkiler Türkiye'de. Hızlı satarsınız. Fiyatı çok etkiler mi?!?! Etkiler belki de, ne kadar etkiler. Çok birşey değil.

- Çok fazla çalışma var Amerika'da ve Avrupa'da ve hepsinde de farklı bir sonuç var aslında. Yaklaşık % 10 yatırım maliyetini arttırıyor. 10-15 yılda geri ödüyor parasını gibi. Ama benim merak ettiğim neden Türkiye'ye geldi. Türkiye en çok LEED sertifikalı bina alan 9. ülke sıralamasında dünyada. Neden yeşil tahvil ihraç edildi?

Inşaat sektörünün gelişmesi de bu konuda çok etkin oldu. LEED i ticari binalara alıyorlar genellikle. Konut ta sadece çok lüks birkaç yapıya alınıyor. Ikincisi pazarlama olarak kullandılar. Enerji verimliliği strateji belgesi diye birşey var. 2 yıl içerisinde enerji verimliliğini şu oranda sağlamak zorunda gibi. Belki onunla alakalı da yapmış olabilirler. Bizde şu LEED aldı. Ondan değeri şu kadar arttı gibi birşey söylemek zor. Bizde proje bazlı arttığı için fiyatlar, onları ayırması çok zor oluyor. Önce bunun bir piyasasının olması lazım. Aynı geliştiricinin aynı lokasyonda bir LEED li bir de LEED siz yapmış olması lazım. Ataşehir'deki KOÇ Allianz a bakıyorum. Yani Allianz'ın o binayı almasındaki nedenlerden biri de belki yeşil bina olması. Şimdi Ataşehir'de bir de Palladium Tower var. Ama ikisi farklı geliştirici. Türkiye'de geliştiriciden geliştiriciye fiyat çok oynar. Yani siz Ağaoğlu nun yaptığı binayla Ataşehir'de, daha küçük bir müteahhitin yaptığı bina, aynı maliyetle yapılmış olsun, aynı lokasyonda yapılmış olsun, birincisi geliştirici farkı vardır bu işte. Dolayısıyla, bu tarz bir çalışma yok. Aynı lokasyonda, bir LEED li bir LEED siz yapmış olsaydı bu farkı görebilirdik belki. Ama böyle bir fark şu anda bilinemez.
Mantıken baktığımızda, sonuçta ben alıcı olursam, orda ne kadar kaliteli malzeme kullanılmış bakarım ve onun bana ne kadar getirisi olacak bakarım. Ona gore aidatlarda ne kadar düşüş olacağını görürüm. Ama Türkiye'de bu çok oturmuş bir mantık değil hala. Ben Mesa'dan ev alırım diyor. Ya da ben Avrupa Konutlarından alırsam değerlenir, hep otururum diyen de var. Yani çoğu geliştiricinin ikinci üçüncü projelerine baktığınızda, ilk projelerinden alanların, sonraki projelerinden de aynen almaya devam ettiğini görüyorsunuz. Bir sürdürülebilirliği oluyor adamların böyle bir mantıkta var. Ama bu bireysel alıcılar için geçerli. Mesela kurumsal alıcılar bu kadar bilinçsiz hareket etmiyorlar. Onlar herşeye bakıyorlar. Mesela diyoruz ya, LEED li

binalar daha çok ofisler için tercih ediliyor. Onlar bu tercihi yaparken, herşeye bakıyorlar. Lokasyona bakıyorlar o ayrı. Ama aynı lokasyonda proje araştırırken bunlara da bakıyorlar. Ana ofis merkezlerinde mesela İstanbul'un. Maslak, Ümraniye, Ataşehir'de mesela.. Ve ofis aidatları konut gibi değil. Yani siz bir konutta 3000 lira kira öderken, aidatınız 250-300 liradır. Ama ofiste siz 3000 TL kira öderken, 1000 tlye yakın aidat ödersiniz. Çok daha farklıdır. Dolayısıyla adam gerçekten aidatların düşük olmasını önemser. Ve çok daha yüksek fiyatlara kiralanıyor. Yüksek alanlar kiralanıyor. Yani ofiste 3000 m2 yi kiraladığınızda, otomatikman çok fiyat değişiyor.

- Sizden yeşil değer hesaplamanız talebiyle hizmet alınıyor mu? Yani bir yeşil değer hesapladınız mı hiç? Yoksa, konusu bile geçmiyor mu?

Bir geliştirici sormuştu. Bu projeyi bir de yeşil olarak düşünelim. Maliyetlerinizi, kira öngörülerinizi, ortak alan giderlerinizi ona gore bakın diye. Orda bir %10-15 lik oynama vardı. Ama çok kısıtlı. Biz de hesap piyasaya gore olmaz. Normalde pazar yaklaşımı vardır, maliyet yaklaşımı vardır. İmalat yaklaşımı vardır. Pazar yaklaşımına gore LEED in etkisi budur diyemeyiz. Ancak gelir yaklaşımına gore diyebiliriz. Bakarız bu nasıl bir kazanç sağlıyor. Alıcı satıcı tarafından. Kurumsallar gelir metoduna gore karar veriyorlar.

- Peki sizce bilinç artacak mı?

Artmak zorunda kalacak. Çünkü global firmalar bu konuyu artık bir sosyal sorumluluk olarak düşünüyorlar. Yani artık siz Avrupa Yatırım Bankasından kredi aldığınızda, onların ana çerçeveleri var. Bu tarz büyük firmaların. TSKB nin de var. Çevreciyiz, karbon emisyonunu sıfırlıyoruz. Her yıl ne kadar karbon veriyorsak biz etrafa, aynı şekilde bir o kadar ağaç dikiliyor şeklinde, birçok şey var. Sosyal sorumluluk projeleri var. Bu tarz projeler arttığı müddetçe, finansmana da olanak sağlayacaktır. Avrupa Kalkınma Bankası'ndan aldığımız bir kredi tamamiyle yeşil binaların dönüşümüyle alakalı. Sizin normal bir binanız var. Ben bunu renove ediyorum, ama renovasyonu da yeşil binaya çevirecek şekilde yapıyorum dediğiniz de, normal de %4 faiz kullanırken, % 2.5 veriyor. Bir yandan bu konuda yüreklendiriyor sizi. Bunların gittikçe artması

gerekiyor ki, genel, hep konuşulan, böyle bir eğilimin olduğu yönünde. Kimse tam tersini hedeflemiyor. Norveç 2020 den sonra, dizel ve benzinli araçları tamamen piyasadan kaldıracağını ve elektrikliye döneceğini söylüyor. Böyle uygulamalar varken, tam tersi yönde olacağını asla düşünmüyorum. Ne kadar uygulanır tartışılır ama, yazılı olarak ve teşvik açısından mutlaka olacaktır.

- Avrupa yatırım bankası, faiz oranında düşüş yapıyor. Mesela bunu eğer bir binanın dönüşümünü yaparsanız. Böyle bir fon çıkartıyor. Bunun bilgisini sizlerden mi alabilir şirketler ?

Bankalardan alabilir…

- Bu teşviklerin, indirimlerin, oranlardaki düşüşlerin insanların eğilimlerini yönlendirebileceğini düşünüyorum. Sertifikalar çok görünür tarafı işin.

Sertifikalar kayıt altına alıyor.

- Bu bankalar, finansal destek sağlayan kuruluşlar, bu sertifikaları tanıyorlar değil mi? Şu an birincil olarak bu indirimi mi tanıyorlar? Yani o faiz indirimini yapacağı zaman, bana sertifikanla mı gel diyor? Yoksa ben çok iyi bir mimarla çalıştım, çok iyi bir tasarım yaptırdım…

O göreceli bir kavram.

- O zaman çok güçlü.

E sertifikasyonlar güçlü. Zaten oyüzden üye olduğunuzda, sınavına giriyorsunuz. Sınavına para veriyorsunuz. Ona çalışıyorsunuz. ÖSS gibi işte LEED te çıkmış sorular var. Birsürü şey var bunun altında. Adamlar her yıl aidat alıyorlar. Bir para dönüyor yani orda da. Dolayısıyla sadece binalara şey yapmıyorlar. Bir ayrı bir community oluşturuyorlar adamlar kendi içinde.

- Böylelikle de herkes kazanmış gibi birşey oluyor. Bir yandan teşvik veriyorlar.

Yeni bir sektör yaratılıyor işte.

- Yerli sertifkasyonumuz var. O şu sıralar biraz yerinde sayıyor. Ben bunula ilgili bir toplantıya katıldım. Yabancı yatırımcılar vardı. Fon vermek istiyorlarmış. Bize ihtiyaç duyduğunuz malzemelerin listesini çıkartın. Bunları üretirsek satarız diyin ki, biz size destek olalım dedi. Şöyle, o da çok ticari bir kanaldan hayata gelmeye çalışıyor. Daha çünkü konutlar için sadece bir sertifika çıktı.

Konutlarda ancak, yapısal şeylerle bunu sağlayabilirsin. Adamın aldığı buzdolabını, çamaşır makinesini kontrol edemeyeceğin için.

- Yerel sertifikaların, LEED gibi, ülkede rağbet göreceğini siz düşünür müsünüz?

Onun için şey lazım. Devletin regulasyonuyla sağlanması lazım. Kentsel dönüşümde bunu kullanın, ben de bunun finansmanını şu şekilde sağlayacağım derse, Türkiye'deki regülasyon budur diyip alırsınız. Strateji verimliliği belgesi ile amaç bu idi. Türkiye neden 9 uncu. Aslında bizim cari açığımızın en büyük sebebi enerji. Bizim bunu düşürmemiz gerekiyor. Bunun biraz da tabana indirgenmesi için de, biraz daha fazla teşvik edilmesi gerekiyor aslında. Mesela dediniz ya geleceği var mıdır diye, el mahkum geleceği olacaktır.

- Türkiye'de bu iş büyüyecek derken, çevre bunun neresinde kalıyor?

Türkiye için genel birşey söylemek çok zor. Kimi yatırımcı gerçekten çevreyi önemsiyor. Kimisi o kadar önemsemiyor. Yatırımı yapacak olan kişiye bağlı.
Ama nesil ilerledikçe çoğu zaman çoğu şey oturuyor. Bizim annaneleremiz dedemiz, arabanın ön koltuğunda emniyet kemeri takmıyordu. Annelerimiz, ön koltukta mutlaka emniyet kemeri taktılar. Bizim nesil arka koltukta da takıyor. Bazı şeylerin değişmesi için ülkede bir nesil atması gerekiyor. Belki bundan sonra daha çabuk olur, çünkü teknoloji çok hızlı ilerliyor. Eskiden bu kadar hızlı değildi. Oyüzden bir nesil

gerekiyordu. Ama Türkiye'de birşeylerin oturması için, artık bir nesilden daha kısa şeyler gerekebilir. Artık teknolojinin ve haberleşmenin artmasıyla çok daha hızlı bir aydınlanma yaşıyorlar. Ama alışkanlıklar da vardır işin içinde. Yeni neslin ben yeşile daha çok duyarlı olacağını düşünüyorum. Çünkü neyi çok tüketirseniz, ona duyarlılık artıyor. İlk başlarda, altın ve petrol de bu kadar değerli değildi. Ama daha sonra, farklı kaynakların artmasıyla, dünya ekonimilerinin büyümesiyle, onların da fiyatları arttı talep arttığı için. Herşey arz talep dengesiyle gidiyor. Siz yeşili azaltırsanız, yeşile olan talep artacaktır. Siz azalttıkça, onun değeri artıyor. Hayvanlarda da aynı şekilde. Hayvanın nesli tükenmeye başladığı zaman değeri artıyor. Ve koruma altına alıyorlar. Normalde tüm hayvanlar neden koruma altına alınmıyor diye kimse sormuyor?

Sosyal değer de şu an ölçülebilir. Eski camilerin restorasyon masraflarına bakarsanız şu an internetten, belediyenin sitesinden, aslında bir degree dönüştüğünü ölçebilirsiniz. Ciddi bir para harcıyor İBB buna. Dolayısıyla o ciddi bir değerdir. Yeni cami yapmaktansa, eski caminin restorasyonuna para harcıyor. O da aslında ölçülebilir bir değer.

- Şu kadar kişiye hizmet veriyor bu cami dendiğinde, bu nasıl ölçülebilir bir hale sokuluyor?

Onu şu açıdan ölçebilirsiniz. Burada örneğin Dolmabahçe Camii'nin onarılması, sadece bu bölgede oturan kesimi ilgilendirmiyor. Tarihi camilerin tarihi bir değeri olduğu için, sosyal sorumluluk olarak düşünüp onarıyorlar. Ayasofya mesela, her zaman tadilatta. Dolayısıyla, bu sosyal bir olgu aslında. Onarmak zorundalar. Ama köyün birine yeni bir cami yapıldığında, kimse onu onarmak için çok da birşey yapmıyor. Ordaki halk onun kendisi yapıyor onarımını, şeyini. Para toplayarak. O etki alanından kaynaklanıyor. Ama tarihi olanlar dediğimiz gibi, tamamiyle bir değer katma açısından yapılıyor.

- Tehlikeli noktalara varması şu oluyor. Hani karşılığını alabilir miyim diye yola çıkılmaya başladığında riskli oluyor. Bir köy turizm potansiyeli dolayısıyla, yeniden restore edilirken, başka bir köy belki sahip olduğu miras dolayısıyla çok daha fazla

toplumsal değere sahipken, restorasyonu çok daha fazla maliyetli olacağından ve turizm potansiyeli daha az olduğundan restore edilmeden kendi haline terkediliyor.

O nasıl pazarladığınıza bağlı.

- İşte yani pazarlanılır hali getirilme zorunluluğu var. Ama bu da bu sistemin bir parçası.

Hitap ettiğiniz hedef kitle ne? Asya'da hizmet sektörü daha ağırlıklı aslında baktığınızda. Adam masaja gidiyor. Tropik adaları görmeye gidiyor. Oraya buraya gidiyor. Kimse farklı bir spor dalı yapayım diye gitmiyor oraya. Ne tarz pazarlama yaptığınıza bağlı. Adam Nevada'da çölün ortasında kumarhane yapacağım, kumar turizminden kazanacağım dedi. Safari yapmadı. Dubai de safari yapılıyor çölden dolayı. Dubai, Abu Dhabi o yönde ilerliyor. Ama Nevada'ya baktığınızda, adam çölün ortasında kumarhaneler kurdu. Ve kumar turizmini orda geliştireceğim dedi. Amerika'nın çoğu yerinde kumarhaneler var. Miami'de de var. Tamamen hedef kitlenizle, ne yapmak istediğinizle alakalı. Küba şu an ben eski Küba'yı yaşatıyorum diye yapıyor. Ama Küba Amerikan ambargosu bittikten sonra, hızlı bir gelişim gösterirse, eski Küba rüyasını bu sefer çevirmek zorunda kalacak çünkü eski Küba kalmayacak ortada. SSCB dağıldıktan sonraki ülkelere bakın. Bulgaristana bakın. Çok örneği var yani. Para tatlı geliyor.

Interview XI

Interviewee: Architectural Design Office – Architect

Place: Berlin

Date: 30.08.17

İşverenin, yani projeyi getiren kişinin düşüncesi çok önemli. Geçen sene bir proje yaptık. İşveren açıkçası ekonomiye bakıyor. Onların da bir sıkıntısı yoktu. Almanya'nın da maddi bir sıkıntısı yok genel anlamda ve inşaat sektöründe. Türkiye'de mimara bir iş geldiğinde müteahhit para vermiyor. İş bittikten sonra daire

veriyor. Yer döşemesi, ısı sistemi, kaba yapı vs. her ne ise, Almanya'da maddi açıdan problem olmadığı için, parasını herkes trink alıyor. Buradaki insanlar kendilerini daha iyi yetiştirmiş, eğitimlerini daha iyi almış, sürdürülebilir mimari konusunu 80lerde öğrenmiş bir toplum.

Geçen sene 2 önemli proje yaptık. İkisi de gösterdiğimiz malzemelerden geri dönüşümlü olanları seçtiler. İkisi de konut, kendi evlerinin yenilemesini yaptırıyorlardı. Bir tanesi 1890 larda yapılmuş bir endüstriyel yapıydı. Bir çikolata fabrikasıymış. Zaten bunların hepsi berlinin merkezinde, avlulu bina. 5 katlı içerisi çelik strüktürlü. Bu binalar konut olarak kullanılıyor. Bütün katlar bölünmüş, 3 daire 5 daire. Geçen sene yaptığımızda yaklaşık 2 milyon euroya almışlardı daireyi 600 m2. Normalde 2 daire çıkıyormuş ordan, ama onlar tek başlarına kullanmak istemişler. İçine de yaklaşık bir 1.5-2 milyon harcadılar. Para sıkıntıları olmadığı için, bütün malzemeleri de doğal malzeme seçtiler. Mesela yer döşemesi için ahşap seçiyoruz. 60 euroluk da gösterdik, 70 euroluk da gösterdik. Adam gitti işçiliğiyle falan 180 euroluğu seçti. Kaliteli olsunistiyorum dedi. Çünkü biliyor ki, bu evi 2 milyona aldı. Üstüne 2 milyon harcama yaptı, 4 milyon. İçinde kullandığı malzemeler öyle kaliteli ki. İşte armatürler.. vitrifiye, küvet mesela 8.000 euroydu. Satarken, en az %30_40 üstüne koyar. Bir müşteri kendisi için yaptırmış, ama ileride satmayı düşünüyormuş. Diğeri de otelde yaşıyormuş. Eve çıkmayı düşünmüyormuş ama dizilere kiralamayı düşünüyormuş. Berlinin batı çıkışında çok büyük bir film stüdyosu varmış. Almanya da birçok film orda çekiliyormuş. Şehirde de böyle ev yaptırıp, kiralayanlar varmış.

Türkiyede 1. Maalesef insanlar bilinçli değil bu konuda. İkincisi de paramız yok. Bilinçli olsak da paramız yok. Biz de insan bir evim olsun yeter diyor. Ama orda ben ömür boyu kira parası da veririm sorun değil diyor. Mentalite farkı var. Biraz da para olduğu için rahat davranıyorlar bu konuda. Bu sene 4-5 tane küçük proje aldık. Bir tane devamlı gidip geldiğimiz proje var. Haftada 2 gün ona harcıyoruz. Ama Klaus o proje için 15 yıldır çalışıyor. Bir tane fabrika. Rüzgar tribünleri üretiyorlar. Şu anda dünyada 1 numaralı bir fabrika. Onların Almanya'daki yeri buraya 1.5 saat uzaklıkta. O fabrikanın bütün eklemelerini, yeni bina yapılacaksa yeni binasını bütün tadilatlarını biz yapıyoruz.

Onlar fabrika binasında hiç de öyle sürdürülebilir çözümlerle uğraşmıyorlar. Bina da hiçbir şey aramıyorlar. Çok daha teknik açıdan bakıyorlar. Ofisi ayakta tutan ana şey bu. Onun dışında diğer küçük projeler ekstralar. Ki onları da Alper yapıyormuş.

Öncelikle gittikleri zaman bir projede, bir analiz ediyoruz. Ne var ne yok. Işık anlamında neyi var. yeterli ışık alıyor mu almıyor mu? Geçen hafta bir projeyi reddetmişler. Çünkü teras yapılsa, teras hiçbir yere bakmıyor. Karşıda binalar var. Yeteri kadar ışık almıyor. İçinde yaşayan zevk almayacak. Klaus bu projeyi yapsak, ben zevk almayacağım demiş. Müşteriye de binayı satın almamaları tavsiyesinde bulunmuşlar. Malzeme konusunda, malzemenin kalitesine bakıyoruz. Bina kaç yılında yapılmış, ısıtma sistemi ne durumda. Bodrumda küfü var mı, nem var mı, duvarlarında kaçak var mı, kullanılan malzemeler, elektrik sisteminin durumu ne halde, once bunlara bakıyoruz. Ne gibi değişiklikler yapabiliriz, bunları anlamaya çalışıyoruz. Tabi bu biraz tasarıma giriyor daha sonra. Çatıda mesela, tahta kurusu var mı, küf var mı, leakage var mı bakıyoruz. Büyük olasılıkla, burdaki yapıların hepsi 1900-1950 arası yapılmış oluyor. Türkiye de olsa bunları yıkar yeniden yaparız ama burda dokunmuyoruz dokunamıyoruz. Mesela 1930 öncesiyse kesinlikle dokunamıyorsun. Özel izinleri var. Restore edebiliyorsun. 30dan sonrasını da genellikle onarıyoruz. Yıktığımızı ben hiç görmedim. İç duvarlar eğer taşıyıcı değilse, kaldırıyoruz. Yeniden design ediyoruz. Veya taşıyıcı duvar varsa, onu da design ediyoruz.

- Nitelikli yapılar değil mi? Zaten dış görünüşü güzel olan..

Dışının makyajını yaparsın o önemli değil. Önemli olan bu yapılarda, zaten sağlam yapılar, tuğla yığma duvar yapılar, işçiliği iyi olan yapılar. Duvar kalınlığı 60-70 cm buluyor. Kimse eskisini, var olan birşeyi, zaten yıkmak istemiyor. Masraflı olacağını biliyor. Tamamen eğitimle alakalı. Bilinçle alakalı. Farklı çalışıyor insanların mentalitesi. Yenisini yapmak daha güzel, hem de istediğim gibi yaparım diye bir mantık yok. Değer veriyor. Mesela bu incelememize dayanarak, ne gibi tasarımlar

yapabiliriz. Ne gibi eklemeler yapabiliriz. Nereleri yıkabiliriz. Geçen sene yine bir arkadaşım birşey almak istiyordu.

- Bir şey soracağım. Tahrakuruları, elektrik tesisatı, küf var mı, ısınması soğuması bakıyoruz dedin ya. Bir analiz yapıyorsunuz. Eksikleri varsa, onları gideriyorsunuz düzeltiyorsunuz. Bunun maliyetiyle, o binayı yıksanız yeniden inşa etseniz maliyeti nasıl? Yani maliyet mi insanları durduruyor, yoksa bu sorgulanmıyor bile mi? Yani orda o yapı duruyor, kıymetli. O en iyi hale getirilip o kullanılıcak mı? Yani bunun sorusu bile tuhaf mı?

Şöyle birşey var. Çok atıl durumda değilse, çok kötü bir durumda değilse, yıkmayı düşünmüyorlar bile. İkincisi, italyadan öğrendiğim birşey. Biz bir hiçbirşeyi yıkmadan fiyat çıkarıyoruz. Bunu yenilersek, ne kadara malolur. Bu fiyat, sıfırdan yapacağımız yapının da fiyatını biliyoruz zaten, çünkü metrekare birim fiyatından hesaplanıyor o çok daha basit. Yenileme, Sıfırdan yapacağımız yapının, fiyatının %40ına varıyorsa, yani ben sıfırdan yapsam 400.000 euro, ama yenileme yapıcak olsam, %40 ı 160.000 euronun üstüne çıkıyorsa eğer, yapçağım yenileme, o zaman yıkmayı önerebiliyoruz. 100000 euro harcıyacaksın ve ev güzel olacak tamam ama, 160bin euro yu geçiyorsa, 200bie dayanıyorsa, ve yıkmadığımız zaman, bu eski yapı ileride yine problem çıkarıcaksa, küf böcek nem problem gibi, yıkmayı önerebiliyorz. Ama daha şimdiye kadar hiç rast gelmedim. İtalya'da mesela yıktıklarımız oldu. İtalya'da yıkıyorsan, aynı m3ü aynı yere yapacaksın. Böyle bir kural var orda.

Geçen sene bir eve gittik. Bir arkadaşım satın almak istiyordu. Tapuda 100m2 gözüküyor. Ama evin bir de çatı katı var aslında. Sadece oraya ulaşım yok. Yani kedi merdiveniyle ulaşım var. yukarda da 45 m2 si vardı. İçine bir merdiven tasarlıyoruz şimdi. Evin değeri %50 artmış oldu bir anda. Çünkü 145 m2 ye çıktı. Bunu tapuya işletmiyor. Ama satarken herkes biliyor. Tapuya işletmek çok masraflı.

Yapıya eklemeler neler olabilir. Berlin de birçok yapıda asansör sıkıntısı var. Binanın içine asansör yapmak çok zor. Asansör boşluğu açılamıyor. Bunun yerine herkes avluya yapıyor. Belki asansör 5 katlı bi rev için 100bin euroya mal oluyor. Ama bütün

o binadaki evlerin değeri %10-20 oranında artıyor. Çünkü berlinde yapılar 1900lerin başlarından olduğu için, asansör bulmak imkansız.

Bahçen varsa, “gartenhaus”, yani bahçeyi tamamen camdan yapabilirsin. Sera gibi oluyor. Kışın ısıtmalı içinde oturabilrsin. Bunlar yapıya değer katıyor ve fiyatını yükseltiyor. Bahçe tarafındaki pencereleri büyütmek veya bahçeye bir teras gibi çıkmak tamamen, evin fiyatını arttıran birşey.

Onun dışında, elektrik sistemini control ediyoruz dedik. Yeni elektrik sistemi yaptırmak, 100 m2 lik bir evin yeni elektrik sistemi 5-6 bin euroya mal olur. Ama önümüzdeki 40 yıl boyunca yeni bir sistemin var. Evinin değerini satarken yine arttırmış oluyorsun. Isıtma sistemi, yine çok öenmli. Çünkü bir yapıyı elimize aldığımızda ilk baktığımız şey, ev ısınıyor mu ısınmıyor mu. Ve bilirkişiyle, billirkişi dediğim, expertlerle, bu konuda uzman kişilerle, ve ya bazı ısıtma sistemi satan firmalardan çağırdığımız kişilerle, bir değerlendirmesini, hangi sınıftan A,B vey a C mi, onun değerlendirmesini yapıyor. Yıllık ne kadar harcarız. Ne kadar kalorifer yakmak gerekir. Evi satmak istiyorsan, bu belgeyi vermek zorundasın. Yani müşteriye, bu evin enerji sınıfı şu, şu kadar harcıyor, bildirmek zorundasın. Aylık 100 mü ödeyeceğim, 400 mü ödeyeceğim. Bunu satarken göstermek zorundasın. Ve bu evin fiyatını etkiliyor. Çok düşük klastaysa, evin dış cepkesine ısı yalıtım sistemi eklemek durumundayız. Vey a ısıtmayla ilgili yeni bir öneri getirmek zorundayız. Evin sınıfını yükseltmek için. Sınıfını yükseltmen demek, senin yıllık harcayacağın parayı düşürmen demek.

- Ve evin kalitesini arttırıp satmak, daha karlı oluyor di mi? Bir para harcamış olsan da.

Evin kalitesini arttırmak için 100 koyuyorsan, evin kalitesini arttırmak için 140 koymuş gibi satıyorsun. %30-%40 koyduğundan daha fazlasına satıyorsun.

- O zaman böyle bir piyasa varsa, herkes evini iyileştirip o şekilde satar.

Alırsın evi 250.000 euroya, ona gidip de 150.000 euro harcamazsın. Ona harcayacağın 40bin eurodur, 50bin eurodur.

Ama bir ev alırsın 1000.000 luk, ve çevresindeki bütün evler de o civardadır. Yani mahalle yüksek kalitelidir. Ona harcayacağın para 300.000 bin euro olur.

Mahalle bir dış etken. Senin evin kötü durumdadır, ama çevresindeki evler çok değerlidir, satarken çok iyi fiyata satabilirsin. Veya tam tersi, evin herşeyi çok iyidir, herşeyi çok iyi yapmışsındır. Ama çevresi berbat durumdadır. 5 para etmez. Bu sana bağlı birşey değil. Bu dış etken. Ikisi birden iyi olduğunda, en iyite ulaşırsın.

Şömine, küvet, ev kiralarken de alırken de bir lükstür. Asansör teras balkon bahçe, evin değerini yukarı çeken şeyler. Çatı durumu, evde kullandığın malzemeler. Yer kaplaması mesela, laminant mı, lastik bazlı birşey mi, doğal ahşap mı, bunlar evin değerini değiştiren parametreler. Aynı şekilde, banyoda ahşap kullanmak lüks birşey. Armatürler, su bataryaları, kullandığın kaliteye gore, müşteriyi ikna etmende, fiyatı yükseltmende sana yardımcı olan şeyler.

- Mesela sen çalıştığın için denk gelmişsindir. Mesela daha çevreci ısıtma sistemi, daha iyi camlar, daha iyi izolasyonu olan duvarlar, iyi çatılar vs. bu şekilde bir binayı çevresine karşı daha duyarlı yapabilecek şeylere karşı insanların hassasiyeti var mı?

Mesela ısıtma sistemi yaptık bir müşterimize. Yerden ısıtma sistemi. 2 öneri vardı. Bir tanesi klasik system. Normal kaba yapının üstüne şap atılıyor, tabi once ısıtma sistemi kuruluyor, borular falan, üstüne şap dökülüyor. Onun üstüne döşeme yapılıyor. Bu klasik system ve çevreye bir yararı yok. İkinci systemdeyse, şap yerine hazır kalıplar kullanılıyor, kare, içinde boruların geçeceği yerler var, bu system geri dönüşüm system. Eski yıkılmış binaların tuğlaları alınmış, o tuğlalar ezilmiş, tekrardan kalıp haline getirilmiş bu şekilde. Karbon emisyonları şapa gore daha az. Ve işin bittiği zaman tekrar geri dönüştürebiliyorsun. Fiyat farkı ama %30-35 arası daha yüksekti diğerinden. Yani 100 m2 like yerde sana 35bin euro kadar farkediyor. Ev sahibi kabul etti. Kabul etmesindeki şey, kendi evleriydi, oturcakları ev. Çevreye daha az zarar

vermek istiyorlar. IT uzmanı. Bilgisayar mühendisi. Yaş 38-40 arası. 2 çocuklu bir aile. Eşi avukat. Zalando diye alışveriş sitesinin, eski ortağı. Yazılımcı. Zalandodan ayrılıyor, bir 30 milyon euro alıyor ordan.

Ama normal insanlar da, bir araba alırken diesel araba çok daha az alıyorlar. Diesel arabayı satmak zor.

Refah seviyeleri yüksek, bilinç seviyeleri yüksek. Bizde en vasat durumdaki bir evi alabilmek, en ucuz malzemelerle yapılmış bir evi alabilmek bile çok zor.

Bizdeki mantık, çatımız olsun, yeter. Malzeme falan umrunda değil.

- Türkiyede de çok zengin insanlar var. Mesela aynı zenginlik seviyesinde aileler, almanyada ve türkiyede. Almanyadakilerin türkiyedeki aileye gore daha çevreci tercihler yapacağını düşünür müsün? Bunu neye bağlıyorsun?

Almanyadaki aile daha çevreci davranır. Almanlar tüketim toplumu değiller. Almanlar üreten bir toplum. Evet kabalar sertler, ama ciddiler. Yaptıkları işte ciddiler. Çevreyi düşünen insanlar. Çevreyi senin için, vey a başkası için düşünmüyor. Kendisi için düşünüyor. Ben burda yaşıyorum diyor. Kendini düşünüyor ama aynı zaman da herkese de iyilik yapmış oluyor. Ben nasıl bir ortamda yaşamak istiyorsam buna yatırım yaparım. Ucuz malzeme almam. Çevreye zarar veriyorsa, ucuzunu almam diyor.

Bazı konularda çok hassas davranıyorlar. İnternetten alışveriş yapıyordum. Yanımda alman arkadaşlar var. Eve gönderecek firma DHL I seçtim. Arkadaşım, onu seçme bence dedi. Onlar çalışanlarını fazla çalıştırıyorlar, çok baskı yapıyorlar fazla çalışmaları için dedi. Bence başka firma seç dedi. Bu konuda bile detaylı düşünüyorlar. Normalde orda çalışan adamdan ona ne. İnsan haklarına değer veriyorlar. Saygılılar. Yabancıya karşı çok saygılılar. Ve çevreyi çok düşünüyorlar.

Dizel araçların vergisini arttırmyı düşünüyorlar. Sen evine fotovoltaik paneller döşersen verginden bir indirim olur.

- Armatürleri, vitrifiyeleri, ısıtma sistemini, yapı malzemelerini, daha çevreci yaptığında, vergi indirimi var mı?

Var. Mesela, yer döşemelerinde, yenilenebilir, doğal, ya da lamine petrol ürünleri de kullanabilirsin. Lamine kullandığın zaman, firma diyor ki, şu ürünlerden alırsan diyor, bunda vergisi %19 sa, bunda %13 diyor. Bunu da devlet sağlıyor. Çünkü sen vergiyi devlete ödüyorsun. Böylece naapmış oluyor, çevreci malzemelerin daha kolay satılmasını sağlamış oluyor. Müşteri de paraya bakıyorsa eğer, biraz daha iyi mal alırım. Hem de vergisi daha az olur diyor. Bu noktada devlet kendi alacağından vazgeçmiş oluyor.

Malzemeler için firmalara gidip bakmak lazım. Mesela bir müşteri gelse, firmayla konuşuyorsun. Firmanın elemanı anlatıyor. Bu geridönüşümlü malzeme, bu doğal malzeme, bu da petrol ürünü olan lamine malzeme diyor. Borularda da, plastic ve bakır borular var. Hangisini tercih edersin. Hangisinin saha geri dönüşü önümüzdeki 15 senede daha iyi olur. Bunu sana adam anlatıyor zaten.

Diesel araba mesela tabandan gelişen bir hareket olmuş. Politikalar da ona parallel değişim göstermiş. Biz de dieseal arabaları yasaklarız. Daha çok vergi alırız gibi.

Tabandan da gelen bir istek var, yukardan da tabana bir baskı var. Biraz birbirini tetikleyen şeyler. Ödül mekanizması vergi sistemiyle çalışıyor. Vey a cezalandırma mekanizması var. Sen tutup ta, Frankfurt ta euro6 sınıfı diesel araba kullandığında, -100km de ne kadar karbondioksit veriyor havaya-, euro4-5 eski arabalar, fransfurta giremiyorsun. Frankfurt mahkemesine itiraz oldu ama, yasakladı Frankfurt mahkemesi.

Normalde antipatik bir davranış. Seçmen gözüyle insanlara bakınca, kimse seçmeninde antipasti uyandırmak istemez.

Ve müstakil evlerin birçoğunun çatılarında, fotovoltaik panelleri var. Berlinde, uçakla geçerken görülüyor. Bütün malzemelerde, duvar kaplamalarında, duvarın yapı malzemesinde, heryerde çevreye daha az zarar veren malzemeler, geridönüşümü mümkün olan malzemeler kullanmaya çalışıyorlar. Refah seviyesi ve bilinç.

- İyi bir proje yapmaktan alıkoyan tehlikeler riskler neler?

Mesela çok yeni bir malzeme kullanmaktan, özellikle ısıtma sisteminde kaçınırız. Çok yeni çıkmış, fazla denenmemiş bir malzeme kullanmaktan çekiniriz. Dış cephe kaplama sisteminde, mesela ısı yalıtımında, yeni bir sürü ürün çıkıyor. Yeni firmalar çıkıyor. Ama 3-5 sene bunlar kullanılmadan, bir verim alındığı görülmeden, kullanmaktan çekiniriz. Müşteri illa ısrar edecek, ben bundan istiyorum diyecek, bunun fiyatı iyi diyecek ki, o riske gireceğiz. Bunun garantisini de veremeyiz müşteriye.

Ve ya müşterinin çok istediği birşeyi yapamama durumu oluyor mu oluyor. o da yönetmeliklerden dolayı oluyor. mesela, belli bir m3 ü geçemiyoruz. Mesela, evin büyüklüğüne gore ekleme yapacaksın. Şurda var olan evini %30 oranında arttırabilirsin diyor. Bahçe sınırlarında 2 metre gidebilirsin diyor. Tasarımı kısıtlayan şeyler bunlar.

- Yeni çıkan malzemeleri kullanmıyoruz dedin. O zaman o malzemeler o ilk 3-5 seneyi nasıl atlatıcak? Ilk çıktığında bir marka onun %30-40 lık bir alıcı kitlesi vardır. Sonra yükselme dönemi 3-6 yıl arası. Daha sonra zaten, güven sağladıysa top noktasına ulaşır. Knauf bir malzeme çıkardığında çekinmiyorsun. Ama aynı ürünü yeni bir firma çıkardığında onu almıyorsun.

Şantiyelerin kontrolünü, büyük firmalar başka firmayla anlaşıp, o firmayla şantiyeyi yürütüyor. Büyük projelerde geçerli.

Kanalizasyon berlinde, büyük tüneller var. şehrin dışındaki atık su istasyonuna gidiyo. Orda süzülüyor. Ordan tekrar yeraltı sularına karışıyor. Yeraltı sularından da tekrar 10 sene sonra falan, yeniden içme suyu olarak yararlanılıyor.

- Enerji fiyatları, su fiyatları birim fiyatları nasıl?

Yaklaşık olarak 4 sene once, japonyadaki tsunamiden sonra, nükleer tesis patladı falan, ondan 1 sene sonra, almanya hükümeti bütün nükleer santrallerini kapatmayı görüşüyor. Ama kapatırsak, alternative enerjilere yükleneceğiz diyor. Yani güneş enerjisi, rüzgar, dalga dan enerjisi kullanıcaz. Daha fazla fossil fuel kullanarak bu açığı kapatmayacağız diyor. Ama bunun size maliyeti, ilk 5 yıl içinde %10 sonraki 5 yılda %20 olcak ve artacak diyor. Ve referendum yapıyor, referendum da evet çıkıyor. Kapatın. İnsanlar için daha ucuz olması önemli değil. Sağlıklarını düşünüyorlar. Geleceklerini düşünüyorlar.

- Kanada'daki adamdan sürdürülebilirlikten bahsediyorum. Esas sorun Kanada'daki elektrik ve suyun birim fiyatının çok düşük olmasından kaynaklanıyor dediğini anlatıyorum. Harca harca, zaten çok az bir fatura ödüyor insanlar dedi. O yüzden de umurları değil dedi. Ceplerini yakmadığı için, bir zorunluk hissetmiyorlar. Aslında pahalı elektrik ve su vermesinin, ne kadar bir anda tasarrufu arttırabileceğini düşündüm.

Zaten Türkiye oyüzden yapıyormuş. Çok ucuza veriyormuş.

- Almanyada pafalı mı?

Elektrik pahalı değil. Kilawat başına 26 cent ödeniyor. M2 başına 85-90 cente falan geliyor. Benim evim 60 m2. Biz 40 euro ödüyoruz ayda. Ama ocak da elektrikli. 5 yıl once 28-29 euro falanmış. Asgari ücret 1200 euro civarı. Türkiyede 1400 tl, 40 lira ödüyorsun. Almanya da 1200 euro alım gücü açısından az değil.

- Sertifikalarla ilgili bilgin var mı?

İtalya'daki ofisim LEED sertifikası almıştı bir proje için. Geox ayakkabılarını üreten firmanın villasını yapmıştık. Sıfırdan. Leed gold aldılar oraya. Zenginler, sertifikayı alma sebepleri, çevrecilik değildi. Sadece kendi reklamlarını yapmaktı. Poligati ailesi, geox un sahibi, çevreci bir aile. Bakın ne yaptırdılar. Içine 2.5 milyon euro harcadılar o zaman. Tamamen kendi ihitiyacı olan enerjiyi kendi üretiyor filan. Bir kaç dergide çıktı. Bunun için. Yatırım amaçla.

Eğer çok büyük firma, yenilenebilir enerji üzerine yatırım yapıyorsa, bunun amacı vergiyi azaltmak, aynı şekilde o 2.5 milyona ev yaptı ama , muhtemelen vergisini çok düşükten aldılar. Bir de biryerlere fatura göstermesi gerekiyordu bir şekilde. Türkiyede de öyle. Büyük firma, batmakta olduğunu duyuyorsun. Bir bakmışsın yeni bir bina yaptırıyorsa, ya da bir showroom, orası kesinlikle bir yerlerden para aklıyordur.

- Sen leed alsan ne almasan ne. Zaten en lüks malzemelerle inşa ediceksin o projeyi. Lokasyonundan dolayı inanılmaz fiyatlara satacaksın. Bu kötü pratiklerden dolayı inandırıcılığının çok zarar aldığını yazacağım bu sistemlerin. Çok çevreyi düşünüyormuş gibi, ama uygulaması o kadar ticari oluyor ki.

Burda metrekare fiyatı minimum 1200 euro net. Sen LEED sertifikası almak için m2 fiyatını 2300 e çekiyorsun. LEED alıyorsun. Senin ne işine yarayacak. LEED teki amaç, yenilenebilir malzeme kullanıp, doğal malzeme kullanıp, fiyatını da aşağı çekersen, 1200den 900 e 800e çekersen, sertifika gerçekten amacına ulaşmış olacak. Böyle zenginlere marka değeri gibi birşeye dönüşüyor.

Interview XII

Interviewee: Building Envelope and Curtain Wall Construction Company – Architect
Place: New York
Date: 02.09.2017

I'm working in the building envelopes, designing facades and curtain walls, and most of the material and systems are coming from Europe. Europe is more advanced than America. We're here still behind. We travel a lot around Europe. Germans , Italians in the office, travel all the time to Europe. All the materials are coming from there. For example, all the glass that we use in our projects are coming from Germany. Because, the standards are better in Europe. They are more precise and defined. America is still defining the standards. The topic of sustainability is still developing and it's hardly clear what it is or not. They have the LEED standards. But you know for Americans it's imp to say smt, but it doesn't necessarily have to be true.

The only sustainability we care is the u-value. Not only glass, but all the systems, the metals, wood, and whatever we have. We have some certain U-values and even there is this LEED programs, it kind of defining the factors that you have to fulfill to get certified, so you have to have local materials, you should have local production. But for special curtain wall, this doesn't work at all. Because you have China, which is so cheap now. That everyone is doing production there. And shipping it to here.

Not all the products from China. It depends on the project. We get stuff from China, from Korea. It depends on the contract. Italians in the office, push for the products in Italy, because in this way they go to their home country and visit.

Also the passivhaus thing, which is very big in Europe, it's something very new here. I was talking to some engineers, they're really excited about it. They try to convert some old houses, into passive houses. But it's hard. They don't have the experience. Engineers are pushing for it. Because, electricity and gas were so cheap before. So, they didn't care about insulating the house properly. But nowadays, things are changing. People don't see it yet. The technical people see it. The engineers know that they have to respond it. All the houses are made of wood, the cheap plywood. The cheapest material. So, in order to heat and cool it, you have to use a lot of AC. You have to use it, because it's so humid in summers here.

The advantage of being in Europe is that everything is so expensive that you have to accommodate your stuff and you have to think about sustainability. I'm paying 15 dollars for 60m2. And it's funny, because in Rentwise, the rent is 2-3 times higher in NY than in Berlin. Because I know in Berlin a 60m2 apartment is around 400 euros, and the same size apartment it's gonna be 2000 dollars here. The food is more expensive. We have the electricity cheaper, cause there is some kind of agreement with the electric company. Because the apartment I used to live before, 30-40 dollars for month. In summer, up to 50 dollars because of AC.

The food and the transportation. Parking expensive, car insurance expensive here. Also the houses are so expensive. A two bedroom apartment, if you want to buy in Manhattan, it's like 2-3 millions. You have to take the loan from the bank, and you have to pay this loan for years. It's the same thing with schools here. For the university, you have to pay. If you go to Columbia, you have to pay 50.000 dollars per year.

I did some courses here, because my company forced me to take them. These people are so ambitious. They think that they know everything. They have to fight.

I am working on a project. It's residential tower close to the Central Park. Everything is designed. And they started to sell the apartments. The cheapest apartment in that building is 20 million dollars. And then, a guy came. And he bought two floors. 40th and 41st floors. It's all foreigners. All the advertisements about this project was going to Russia. So the Russian billionaires and the Arabic also. The surface of the apartments are not so huge. They were small apartments. But the location and the view was very good. And he said, I don't like the windows. I want them bigger. Because I want to see the view. He is the owner. He can do everything. When you have money, you can do whatever you want. Now, he wants to change the floor plans. And he brought his team of engineers to change it. The funny thing is that he is not going to live there. Maybe a couple of days in a year. Because for them, it's all investment. He pays 120 millions now. But in 5 years, it will be 200 millions. So, he can sell.

There is an Arabic guy, just come to shopping to NY. And I've spoken w the cleaning guy of the apartment. He said, all the closet is made out of gold. It's stupid.

They don't care about sustainability. Maybe Dubai is a little bit more concerned. A mix of European and American standards.

The foreign investors have to control the quality and protect themselves from any potential law cases. That's why we have standards to protect us.

They are selling the big scale. But in reality, they are working in a very law scale.

When you are setting up an energy contract in Germany, you have the option to choose which sources you want to use. And I remember I went for the green one. But this energy was the most expensive. When you have a rich country, and you have enough money, you can choose to have better options. But, in America they don't have it. I was in Iceland. Their energy is %100 renewable. Because their energy is coming from the rivers and volcano. They have geothermal energy. They use this energy for electricity and heating. So, there is no pollution. The only pollution is from the cars.

40 people are working in my company. For America this is small. In America, there are construction and design firms with 600 employees. They have different offices in different cities.

The percentage of the certificates are also very law in US. Especially now, there is now booming in construction. There is a new building in every corner since the last few years. Developers, they have goals. Gold/ Platinium certificates.. But to get there, you have to pay local forces, local production, which is more expensive. They say, ok, I go for Platin. But then they say we cannot reach platin. Lets go for gold. Its like less stringent. Gold, what are the requirements? Oh, this is still expensive. Lets go to the lower. In the end it's just certified and that's it.

Certificates are giving all the constructions a direction. A sustainable building should be like that. They define the sustainable building. But in my thesis, I say sustainability should be site- climate- and culture- specific. Responsive to the climate. But this certificates have very generic solutions to sustainability. But still, companies have difficulty to get these certificates. Are there any types of going green in NY?

Unless it's the consciousness of the owner, the developers only care about the certifications. There are also some regulations like, if you have a residential building. And this is more social than environmental, which I don't like. When you have built a building to rent it out to people, you have different prices of apartments to rent. So maybe the rent is 500.000 dollars a month. And in NY, by the NY city law, they have to provide smt that is called controlled rent environment. That means that in these high expensive buildings, you should provide few apartments that people with the low income can live in. So lets say, the normal people pay 10.000 dollar rent, the low income people pay 800 dollars a month. And this rent is stabilized. So they cannot change it every year. You can go up maybe 1% but nothing more. So in this way, it's nice for low income people. Because they can live in high income areas. They have apartments there. But the problem is, their jobs are low income. So, they have to earn enough money to live there. They have enough money for the rent, but they don't have enough money for the food. Because the food is expensive there. The maintenance fees are expensive. I think it's very hard for low income people to live together with high income people because of the spendings. So, they move out. They cannot afford. In supermarket, the prices are 3-4 times more than the other places of the city. So they move.

There was an advantage also. Now they try to tear down the buildings in Manhattan. Because they want to built the high-rise. By the law, you cannot force people to move out. So, developers offer them money. So, even if you don't own the apartment, you get a lot of money to move out. There was a case going on for 5-6 years, which I follow from the news. The developer want to get the building to tear it down, near the central parc. And they couldn't move out all of the people. They

were offering 1 million to move. But some people said: no, we don't want to. They went to court. They ended up for 20 millions each. Just to get out of them. It's a funny thing. The landscape in NY is very strange. You have a downtown with high buildings. But then it's very flat. You have 4-5 storey buildings. They try to make them high-rise. It's booming. There is a very high market demand. There is so much money coming into that. When you have a lot money coming to the city, the things cannot be sustainable. The code is also changing. The city code is trying to be stricter. It's hard to follow. Money is playing a big role. If you want to built a 90 storey building, there is no one to stop you. Its like, there is s huge development in NY, its called Hudson Yards, so its like an area where they will built 11-15 new buildings all high-rise. But, the problem was the developers couldn't but the land, because the mayor was it was before didn't allow them. Because he had some different ideas. Developers was jewish. He was Italian. Also a bit cultural. Then what they did. They got a jewish mayor selected. But he went second term. But they still didn't get the land. Because it was a long process. İki defa başkan olunca 3 cüsünde olmaıyordun. But they played with the law. And they made him selected for another term and they got the land. So, there are so many games.

- The risks and dangers to stop you while designing something sustainable?

Its all client related. If they are into sustainability, they will conscious about it, they will take care about it, if they don't care about it, then no one care about it. ın order to follow it, you have to have strict laws. At the moment, everything is done by the certificates, which is not obligatory to have. So if it's not official, why should I have? If it becomes obligatory through the law, it could work.

- Do you have some exceptions with the clients? Clients who have grand vision?

The problem with the New York market, the clients are not well educated. NY is the most progressive place on earth. But on the other hand, It's also really traditional. It's not controversial. All the new ideas, all the modern thinking look like come from

NY. But, it kind of doesn't work. The people they have money, they are more traditional. And they learn just to invest without thinking about the consequesnces, or the future. If it's a good investment, it will go forward. If they learn that sustainability is a big thing, maybe they start to think about it. But, they are usually not sustainable. They just invest money, put their money to build it, and then sell it. They don't care.

- After 2008, after the mortgage crises, the green certificates were much more famous. Do you think something like that?

No, I don't think so. University buildings, school buildings have the certificates. For residential buildings, you cannot find any certificates. For some commercial buildings, yes there is. They will become sustainable with the u values and passivhaus. But we're years away for the moment.

In Germany, you have passivhaus complex. I was analyzing a passivhaus building in Hamburg, but a huge building, and that was built around 20 years ago. Here, we don't have smt like that. If you have a passivhaus, it's probably small residential house here.

We just look at the U values. We do a lot of testing before we build it. It's not only testing for sustainability. It's the basic testing that do you have leaks in the building? So there is no water or air coming to the building. U values are checked. We have actually the mechanical engineers. Because they have to know what the u value of the building. So that they can design their systems. Like the central air and smt like that. Probably mechanical engineers will be more into sustainability than the architects. For them, it's very important to have the correct u values. Because their system rely on that. And, they don't want to put more than it's possible. Because they are the ones realizing that costs are going up.

In Serbia, people are also realizing that they have to do something about the facades of their homes. Because they want to cut down the cost. This is one way of getting sustainable.
In the imaginary world, there is the scarcity of the non-renewables. But in reality, there is not. In Dubai, they built the subway stations, metro lines. But, nobody use it.

Years ago, I've attended to a conference. There were some people from the third world countries. And Germans were asking, how calm you are polluting so much your air, water, soil? Why can't you be more like friendly to earth? Take more care of your surrounding? Well, you germans can do it. Because you're a rich country. You have food everyday on your table. We don't have. So, we unfortunately have to work to get that level, which you were now.

We are living in the cities now. The cities are so artificial. We have the building codes. To get the permission, to be legal, you have to use their products. You have to buy them. You cannot produce on your own. The indigenous tribes in amazon, they are the most sustainable one. They just don't allow you here to produce your own material and building. The local workforce is expensive. Local materials are expensive. You import them from China.

- Even if they try to push something, they have evaluated. So, they couldn't go beyond the norms. And what about the norms?

The problem with the norms is they are always behind. It takes time for them to develop. The building code in NY City, there is one in 1968, and then the next code was the 2008. Fifty years. But, we are lucky. We have a new code in 2014, six years after. And now there is speculation about having a new code maybe in 2018.

It could be an experiment. And most of the time, it will just fail to create all these regulations. It's always a question. Regulations they keep you stay safe. So, that's the thing. If I want to have an experiment, if I want to do something which is never done before, regulations will never allow you to do that. So, you'll have to do in LA, they

have less restriction, so they have more stuff to do there. But that's the thing with regulations. We cannot change it. And they are always behind.

There is also another thing. I was doing a lot with the codes here. So, the codes were never clear. I mean they don't have a clear language. Defining exactly the thing. It's always a bit unclear and grey. So, you can get two meanings out of a thing. And, I had a case when I had to go for the different codes. I started from one place and made a huge circle with so many folders and files. And, in the end, I ended up with the same place that I started from. I never got the clear answer.

Because there is never a clear thing, that gives us the space to do more experimental. Because if the code doesn't say exactly do this, it doesn't mean that you don't have to do that, smt else, as long as smt similar. Maybe, that's why the code is written like this. Because they know that they are going behind. And they cannot expect any innovation coming into it, if they don't have space allowed for it. That's why they have the revision of the code. Because they have to give them also the space to breathe. If they become so strict, then you just copy and paste the buildings.

The interpretation of the code, sometimes, allows you to be more open. Mahkemeye gittiğinde de aynı şey geçerli. Yasalar yoruma açık oluyor. Örnek bir olay bulduğunda sen de onu kullanabiliyorsun.

Last year in my office, I got the position with the codes. That's why whenever I'm reading the codes, my mind is never clear with them. You're never sure what they say exactly. The thing is, when you start to look for smt, maybe you should have an idea what's the next thing that could happen. Or what's the opposite if you compared the code. It's a mess. Creativity mess. We want to be on the safe side. But we also have to do something innovative. So, they know it.

You never push your own idea. Always, it's the client's, which has taken. So in the end, we come back to the consciousness of the client. The schools are funded by private people. Some rich guy, ok I'll give 10 million dollar. And they built the school.

Interview XIII

Interviewee: RICS Germany – Real Estate Appraiser

Place: Frankfurt

Date: 06.09.2017

- How do the good design, quality and performance of a building affect its value? Does it change according to the method used?

I would argue that the methods should not influence the outcome of the value. The mothods used only are a tool. The value of the buildings should be determined by the quality of the building, not by the methods used. It's rather a question of accessibility of data- information about the transactions. Not about what kind of method you use.

- How does a good design/ sustainable design affect the risk in property valuation?

Well, in my point of view, it's a very strong factor on the risk. Because, the good design will assure a longer usage of the building. And longer usage, minimizes the risk. Because, one of the major risks in urban properties is that it might not be suitable for future uses or future demands of the market. By applying good design and good quality, the risk is reduced enormously.

- For example for the income approach, income capitalization approach, how does the good design affect?

Well, because a good design will achieve a higher value on the rental market, because I understand the good design is the good usability of the property.

Whatever it may be, if it's residential or office, commercial or whatever, having a good ability to use the building or having a good productivity or good quality of living, you will have higher income. Because you will get more rental return. So, you will have a higher income in the income approach.

- As valuation professionals, how do you understand that a building has a good usage and in a good stage that can be used for longer terms? How do you understand this as valuation professionals? Does the certifications help or do you work with some experts or architects? How do you define and understand the good design?

The value of works are pretty much unknown, because, honestly, in the practice of regular valuation, there isn't so much time and money to spend to include many experts to really look at the building. So, the value is mostly determined how the building is categorized in these qualities of usability. So, of course, the experience of the valuers are relevant. And, of course, the question: which kinds of qualities are used to be more valuable in terms of the outcome of the valuation process. Of course, on one hand which kinds of data are accessible for the valuer, and on the other hand, what kind of qualities he sees and understands, what is the experience of the market, which seeks for these qualities.

- To cope with complexity and uncertainty in the property valuation, what can architects and their design do? How can they help to solve the uncertainty and complexity problem?

Typically, there is little interaction with the architect who originally built the building and the valuer who comes 10-30 years later. So, there isn't much interaction between these two. But the design of the architect should be flexible enough to adapt to future uses and changes in the market. And further on, of course, the architect can assure that the quality of the building visible and transported to the future. So, the question of documentation. An architect can assure that the design, ideas, and the information of the property are recorded properly, so they can be acceptable for any future assessment by the valuer.

- Acquisition of a certification here, does it help?

Sustainability certifications? Yes! Probably it helps. But it will be just the certificate. It's more important for the valuer rather than to understand that it is a LEED Gold building, but what are the qualities that led to this result. So, nice to know, ok, it's LEED Gold, but what are the qualities behind that information? How is the accessibility, how is the energy performance, how is the well-being of users, what are the real criteria affect productivity.

- Can I ask these criterion??

For my point of view, the main criteria is always the well-being part of the people in the building in the sustainability section. Because, it is the hardest thing to measure. When you talk about the efficiency of the building, yes energy is nice, but when you have an office building, you look at the productivity of people of the company. It's ten times more important that how productive the people are in that building compared to the energy used.

- How do you measure the productivity of the people?

Of course, everybody looks at the energy, because it's easy to measure. But productivity and the well-being is hard to measure. Because it's a subjective thing. But in the sustainability certification systems, you have the criteria that look at well-being or people part. So, the people part depending on, how is the air quality in the building, how is the light, how is the noice, you look at the things that make people sick, how is the outer quality… There are a lot of things that you can look at. And in the end, you hope that these increase the productivity, which you can measure by asking people that they like to go there, they like to work there. So, that's smt, well, you can ask people. You can make survey. And that's already help, because even to get good employees. Because you already have good offices. already advantage. People, nowadays, they decide for whom to work precisely. Because they choose the

space, where they want to spend really a lot of time. So that is an advantage and it increases the value. So, very important factor- well being.

- Does the valuation practice affect /or change the design decisions of architects or engineers before a new construction project or a renovation project start?

Yes, that's a good question. Well, I hope so. And I think, hopefully, it does. But, it depends, of course, on the experience and the knowledge of the architect, they are around know. If the architect is not aware of the mechanisms of the market and how valuation works, then probably it will not be able to take into consideration when he designs the building. So, it depends on the knowledge and experience of the architect. Well, of course, the architect is not the only one, who decides how a building it designed, because also the owner and the one who pay for the building decide what is going to be built. And, the owner, or the investor, of course, probably, will have a clear picture of what he needs in the end and how the building should function and work. And hopefully, he will tell his architect. But if the architect is able to understand these mechanisms and things, that depends on the qualification of the architect of course. If this is reflected enough in the architectural education..

- Does the value of qualified buildings go up when the awareness about the design and construction quality, and the social and environmental impact of the buildings increases?

Value is smt which is created in the mind of the potential buyer. So, value is what the potential buyer would pay. So, if in the head of the potential buyer of a property, if he is aware and know of some certain qualities. For example, 30 years ago, nobody know that a fusty is bad and unhealthy, it will not affect the value. And the other way around, if you are not aware of any qualitative critera or qualities of buildings, they will not be able to affect your project. So, there will be no affect on the value. More knowledge and understanding the buyer is, more this qualitive, when they are perceived as positive qualitive!!! (he says so, but it's difficult to guess what he means) will affect the price that people are willing to pay for it. But, yes of course,

awareness of the potential buyers in the market affects what they pay. But they have to understand it. As long as they don't know what LEED is, or BREEAM or DGNB, they won't be willing to pay anything for it. When they know what is it, and they understand it and they proceed it smt goodi then they will pay for it. So, it's a matter of sparing the news and putting the information into the head of the market that this is smt good to have.

Interview XIV

Interviwee: Contracted Professor – Multi-Criteria Analyst

Place: Milano

Date: 06.09.2017

- How do the good design, quality and performance of a building affect its value?

It depends on which parameters we are talking about. Quality has always of course a great impact on value. Because its true that quality always have a significant influence on the final determination of the value. The problem of determining the definition of quality is always hard. Because not all of the local communities, becaue if we are talking in general for the models that can be apply anywhere, of course, quality is a very heterogenous concept. Because quality is of course by the sensitivity so the capability of local communities of reading the context and giving it a value, that is not always economical value but also environmental, social, aesthetical, architectonical value. So, of course, parameters of good design have always a significant part of the final determination of the value. The problem is ahead. So, what makes the good quality of a design. And of course, its hard to tell which are the parameters that can be considered in general as that. Think about as an example, what happened in our historical cities. We are lucky, I've just been together with a very heterogeneous group that was working there, and I was trying to understand how people relate to the value of historical, cultural and architectonical elements. Every different culture has a different approach to history. So, what can be valuable,

what it the highest value as possible for us, like the Europeans, who have a certain sensitivity towards historical and cultural places, might not have the same meaning in many instances for other cultures. Think about the north americans, who have a completely different way of dealing with history.

So, for Europeans of course, the quality of design has a very strong relation to the need of determining value every decent part of the city. And the parameters that are usually related to good design are the relationship that the building has with the context and the building itself. So, as usual for the determination of value, we have two grades of parameters, external: the context parameters, in which part of the city it is, how that part of the city has been developed, how it's been maintained and transformed, which are the main uses that are available in that area. What is the main use of public spaces? How many public spaces we have and so on. And you have of course the internal part. So, the intrinsic features of the building that are related of course, how the building is made, the density of common spaces in the building itself, the use of materials , the use of spaces, the use of technological systems, which technological systems you have and how flexible they are. The flexibility to maintenance.so of course, the quality of design, if we are talking about European context, has a strong impact and it's not only related to the building itself but also related to the design of the neighborhood in which a building is.

- How does a good design/sustainable design affect the risk in property valuation?

Usually, this is a matter of statistics, so its not true any possible instance. But usually, sustainable buildings and buildings, that have a stronger planning, more we can say, conscious design preparation, planning and determination, has a lower risk in terms of investment. Because, usually there are only few parameters that have been underestimated. If the design has been properly conducted. So, if the design process has been properly made, and all of these parameters, that it environmental and social sustainability, have been considered properly, usually the risk in the investment is lower. But it's not true in all the possible instances, because we know that the evolution of even the construction process can deal to many possible results

and we know that we cannot predict anything. But in general, the risk in investment is lower. If all these parameters have been correctly planned. And also that in the actual idea of sustainable design, not only the elements that are related to the environmental friendliness should be comprised. Sustainability has a much wider meaning which is also comprising the elements of maintenance, element of use of spaces, element of social use of spaces, the element of social surplus and social friendliness. The latest parameters that are used for determining the impact of a project on the efficiency on the development itself is the return on the investment in social terms, what is called social return on investment. So, the consciousness that we have in European area, is turning towards a more complex set of parameters for determining the sustainability of design, which is not of course the same panel of elements which you can find in other parts of the world. Lets say turkey is much more European in this sense. If you compare to big Asian countires, like India, China, Japan and so on, I think it's more European than you might expect. Because turks have culture that is rooted in the Mediterranean history. So the sensitivity we have towards some topics is more common shared in the Mediterranean area. Of course, it's different. Because the resources we have are different. If you go in deep and relate to which are the parameters, there are usually evaluated. It's much easier to compare the Turkish actual situation to the European so the Mediterranean one than the African or the Asian one. In Asia, China and India, now there are different problem and aim, and that is not of course the environmental friendliness. They need to bring their big amount of population from traditional living culture to a modern one. So, they have completely different problem. In north America, instead, you have a completely different situation, that is related to the fact that, they have more resources more spaces and a different sensitivity towards the environment. The Americans don't think that the environment has such big impact in their life.

- To cope with complexity and uncertainty in property valuation practice, what can architects and their design do? Is it more convenient for them to repeat the already successful solutions / designs?

Well, when you draw a line, you should always be aware and conscious of what are all of the possible implication that that line drawn like that might have. It's not true that a good solution that is successful for a certain context can be successful in all of the instances. Because we have an examples, in which good solutions that have been successful and succeeded in other situations, where instead unsuccessful. So, thank God, we still have brain. Because the most important part of an architect is his brain and his sensitivity to understand how some solutions can affect the final result of the project. So, yes, of course, we have to learn from the experience, but repeating the solution without adapting it to the specific instance, can be more dangerous than successful. So, it's a good thing to look at the past. But never underestimate the fact that, every context, even if slightly, is different.

- In practice, the investors prefer the similar solutions.

Yes, usually. Though, a reductive idea of investors usually. Because we always think about investors as the big investment company that is only having the single goal the economic result, the financial result. Its always depend also on which is the investor. Because the average investor, usually, has a a specific aim. But it's hard to tell, if all of the investors are similar and comparable. Because in real estates, you can have investors from banks to construction companies or to facility management companies, which makes the evaluation completely different. Because banks have a specific goal. Construction companies have a different one. F.M. companies have a different one. Because of course they look at their aim. Construction companies have an aim of selling the properties that they are building. F.M. instead has the aim of creating a set of properties that will be managed in the future. So, it will be put on the market as rent. Banks are hard to tell. Because usually, they have the aim to sell as fast as possible. But it's not always true. And this is of course not all of the possible investors that you can have. Investor is a general concept. And every generalization is the simplification of the complexity of the real world.

- How does the valuation practice respond to the innovations and diversity/or pluralism in design solutions?

Usually, evaluation is running after innovation. Because, of course, you can evaluate smt only, if you know it. So for knowing it, you need to have experienced it at least once. So usually, like laws, laws are usually running after the real world. Evaluation is usually doing smt like that. And it was true up to 15 years ago. Of course, when the innovation in construction was faster than the innovation in evaluation. Nowadays, it's hard to tell, because we have solutions that have never been tested before, but that can be evaluated in any case, because we have more sensitive and complex evaluation systems. So, it always depends on which kind of innovation. Usually, technological innovation is easier to be evaluated. Though it has never been tested. Social innovation and environmental innovation instead are usually much harder to be evaluated. Because they need existing data usually for comparison and the fact that usually social and environmental models have a much lower prediction capability than physical, chemical, technological, and engineering systems. It makes it harder. So, it depends on which type of innovation you are talking about. If the innovation is the use of a new tool in the electrical system for preventing the fire events, it can be predicted in advance in an aprioristic method what will happen. If you are talking about the impact of certain solution on the air quality in a specific urban context, you need data to compare your predicted solution to what actually happens.

- To measure the social impact, the more abstract impact, there are some more sensitive evaluation methods. What are those?

It means that usually evaluation methods can be of whatever kinds of can be. Talking about evaluation methods are usually hard. Because in the evaluation, what is important is, usually the final aim of evaluation. So, its true that depending on what is the aim, you have different possible evaluation systems that can be used, and of course, you can have different level of precision so the accuracy in measuring different parameters, topics, things, ideas,. since we talking about the multi-criteria-analysis. Its also true that, different disciplines, like the social sciences compared to environmental sciences, compared to proper sciences like, physics, chemistry and so

on, have different reliability levels in their modelization. So, for social model having an accuracy of 70% is more than what you can expect from the average social model. For chemistry , for example, a capability of prediction, that is the 70% is a very bad model. So, it depends always on what you want to measure. If you want to measure an economical parameter, you can be happy of having a 70% of precision level, so the accuracy level. Because usually economical models are not so effective like the physics model.

- Does the valuation practice affect /or change the design decisions of architects or engineers before a new construction project or a renovation project start?

It should be a spiral process. Because usually you start evaluating it, then you start to developing the idea using the results that you get from the evaluation. And the evaluation in a good design process, should have spiral feedback in the design, influencing the different moments of the design process. But then, of course, talking about design process is like talking about life, the average life of a person. Because these processes can be as different as possible. It depends on the in which country you are, what sort of project you are developing. But usually there should be recursive relationship between the ideas that are developed by engineers and architects and the idea of evaluation procedures come up with, showing which could be the results of , as an example a different choice in materials compared to the previous choices that were made.

- Does the value of qualified buildings go up when the awareness about the design and construction quality, and the social and environmental impact of the buildings increases? How?

Awareness is a big word, because being aware of smt is knowing what the outcome, or what the results can be. So, for example, I can be aware of the fact that I need to use a certain color for my building, because there is an urban plan in the city that I can only use that color. But, it depends on my capability of understanding that information. So, I can think what will be the final impact of my choice on my

building. But only expert evaluaters, architects, engineers, and so on, will have a total capability of understanding what it will imply. Investors, usually, a big and very fragmented and heterogeneous group of people, so most of them are aware of these factors. But only few are able to understand to the end of it. What is the real impact of the some of the choices. This is a typical economical contradiction. Because even Smith used to say that, if investors would know what are the results, what investing really imply, none of them will ever invest in their ideas. Because usually, what you are predicting in the beginning in an economical or financial point of view, is never what you get in the end. This is called a paradox of the hidden end or smt like that. The idea is that they are aware that here are some things and factors to be considered. But its always hard to understand to which point they know that it will have an impact on the project. Mainly the big companies should have a good set of consultancy. To know exactly how every single choice might have influenced the final result.

- What are the most prestigious certificates and labels, which affect the most the value of a building in Italy?

In Italy, we have the law that pushes the contractors to certificate their buildings for being able to sell them. All the newest buildings constructed are certificated. The problem is that the certification that is required here is just a certification that is made on a scale that goes from A to C. about the consumption of energy and emission amounts. Region by region, local authority by local authority it differs. In Lombardia, there is a protocol but in Emilia Romagna there is another tool. We have so many different situations. So every regional government have different strategies.

-passivehouses, eco-towns, solar settlemtents/ towns .. does the valuation practice also deal with them? They are not commercial office buildings. But probably, they are more high-performance, high-quality buildings and settlements and offer more well-being. But, do they value more?

Usually yes. But its still a matter of sensitivity. And it depends on the target. If the target is the common investor in the real estate market, and we should open the meaning of what is the average investor in different countries. Usually, investor is a private owner. That is buying his or her own apartment. Of course, this will make it even harder. If every single person has the awareness of what environmental friendliness is, and how will this affect their investment is really hard. Of course every investor has a certain plan. When they make their own reflections on what is their investment capability, so the resources they have to invest. And what is the affect that that investment will have. Lets say that we have for sure a big part of investors, usually, the high end ones, who are aware of the fact that the quality of the design has a strong impact on their investment. The smaller ones, usually at the en of the scale, like the single private investor and so on, that give a priority usually to economical parameters than the quality of the building. A good design has a strong impact on the final value of the building.

Even interior design has a significant impact on value. The problem is how to measure it. Usually we talk about the market as it is a single entity. But the real markets are so heterogeneous that is very hard to tell whats going on in the real markets without simplifications. In the real estate market, you have such a big amount of investors. And in the investors, you have a very heterogeneous set of people, and companies, and subjects. And you have sellers, which are also composed of very heterogeneous groups. Then you have the goods, which is the most heterogeneous thing that you can ever find in every market. So, it's always hard to tell what really happens in the market. Most of these methods has started as energy efficiency systems. Many of these systems has an economical set of parameters. Most of them are concentrated on cost. Very few are concentrated on cost and revenues. Many of them don't even consider the management cost. Usually legislations pushed these certifications. Mostly compulsory.. they are a step behind what the market is.

We should start to talk about the performance as a whole. Not only environmental performance. Inserting some social elements, some aesthetical elements, why not, some environmental, some economical, some financial, because not all the economical evaluations also have financial performance systems. It's hard because

an evaluation should always have a name, in such a wide set of parameters might make you lose the aim of the evaluation. So, it's better to use more different tools having a specific aim and than put all of these results on comparison what is the final balance in terms of total performance. Because there is the risk that too wide evaluation system having tons of parameters, end in the end you miss the important answers. It's a difficult world.

CURRICULUM VITAE

Burçin Mızrak Bilen Curriculum Vitae

Personal Information

Address: Beyazdut Sok. No: 3/7, 34349, Beşiktaş, Istanbul, Turkey

Phone: +905068127086

E-Mail: mizrakburcin@yahoo.com

Education Information

Doctoral Student, Faculty of Architecture and Urbanism, Bauhaus-Weimar University, Germany, 2012-2018

Master of Science in Architecture, Polytechnic University of Milan, Italy, 2009-2012

Bachelor of Architecture, Middle East Technical University, Turkey, 2005-2009

Academic Dissertations

Master's Thesis, Where We Grow Up Does Really Matter: Child Friendly Cities and A Proposal for Tarlabası Istanbul, Polytechnic University of Milan, Italy, June 2012

Work Experience

Res. & Teach. Asst., Yildiz Technical University, Faculty of Architecture, Istanbul, Turkey, 2013- Present

Architect, Beltrame Gelmetti Architetti Associati, Milan, Italy, 2011

Articles

Hizli N., Mizrak Bilen B., "Re Thinking Loft Buildings in the Scope of Housing Production in Turkey", MEGARON / Yıldız Technical University, Faculty of Architecture E-Journal, cilt.10, ss.479-493, 2016

Mizrak Bilen B., Sergio M., Alessandra P., "Where We Grow up does Really Matter Best Practices forChild Friendly Cities Applied in Tarlabasi Istanbul", Environment and Ecology Research, vol.2, pp.185-193, 2014

Book Chapters

Polatoğlu Ç., İlgürel M.N., Mizrak Bilen B., Çelik K., "Sürdürülebilir Bina Uygulamaları Araştırması: Van Atölyesi, Yıldız Teknik Üniversitesi / Yüzüncü Yıl Üniversitesi Ortak Öğrenci Çalışması 2013/2014", Yıldız Teknik Üniversitesi Basım-Yayın Merkezi, İSTANBUL, 2015

Conference Papers

Ciravoğlu Demirdizen A., Önder D., Çifci A., Erkenez S., Mizrak Bilen B., Taştan H., "3rd International Conference on Preservation, Maintenance and Rehabilitation of Historical Buildings and Structures", 3rd International Conference on Preservation, Maintenance and Rehabilitation of Historical Buildings and Structures, Braga, PORTUGAL, 14-16 June 2017, pp.2082-2089

Çiftçi A., Ciravoğlu Demirdizen A., Taştan H., Mizrak Bilen B., Erkenez S., Erinsel Önder D., "Reuse Of Industrıal Herıtage The Case Of Kurt Tıle Factory In Tuzla Istanbul", Rehabend 2016constructıon Pathology, Rehabılıtatıon Technology And Herıtage Management(6th REHABEND Congress), Burgos, SPAIN, pp.2073-2081

Mizrak Bilen B., Quality of the Product versus Risk and Cash Flow in Sustainable Property Valuation. Annual Paris Business Research Conference, 2016, Paris, FRANCE

Mizrak B., The New University Campus of Piri Reis and its Breeam Certified Buildings. The IIER International Conference, 2016, Toronto, CANADA

Hizli N., Mizrak B., "Re thinking Loft Buildings in the scope of Dwelling Production in Turkey", Environment and Design International Congress, 2014, İstanbul, TURKEY, pp.227-240

Mizrak B., Erkenez S., "Sustainable living and building indicators in Old Ağirnas and their interpretations for new practice and research", Eco-Architecture V: Harmonisation between Architecture and Nature, 2014, Siena, ITALY, vol.142, pp.161-173

Mizrak B., "Spatial Child Friendliness in a Disadvantaged Neighborhood of Istanbul", Architecture, Education and Society 2014, Barcelona, SPAIN

Symposiums/ Congresses/ Scientific Meetings

Panelist, MKÜ-YTÜ Mimari Tasarım Kuramları ve Uygulamaları: Bilgi/ Fikir/ Üretim Paneli, Hatay, TURKEY, May 2017

Speaker, CasP Conference on "Capital as Power: Broadening the Vista", York University, Toronto, CANADA, September 28-30, 2016

Art/ Design Events

National Workshop /Workshop coordinator /, 14.10.2016-15.10.2016, Çocuk Mimarlar: 1. Çocuk Sokak

Atölyesi, Istanbul, TURKEY

National Workshop /Workshop coordinator /, 07.11.2013-08.01.2014, VAN - Yıldız Teknik Üniversitesi/

Yüzüncü Yıl Üniversitesi Ortak Ögrenci Çalışması 2013/ 2014, Van, TURKEY