

SPACE-ERROR

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ABSTRACT

SPACE-ERROR

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Creativity is considered important in design methods yet they do not give enough courage to designer for being more creative in design process. The reason, why this courage taking from designer, stems from the complexity of production and planning process of modern world and designer needs to analyze every data in order to provide best solution for every agent's needs. Designer starts to be a connector between agents, instead of being creative and experiencing new knowledge from the design process.

Attempt to solve this problem, new method, which requires error in the process of design as catalyzer, can be used for gaining knowledge from inexperienced area. Designer reaches an unbounded environment, free from being a connector between agents in order to inspire from new knowledge and be more creative.

Keywords: Design, Error, and Creativity

ÖZ

MEKANIN HATASI

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Yüksek Lisans, Kentsel Tasarım, Şehir ve Bölge Planlama Bölümü

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Yaratıcılık, tasarım metodolojilerinde önemli olarak varsayılmasına rağmen, yeterli desteği metodolojilerden elde edemez. Yaratıcılık cesaretini elde edememesinin sebebi, metodolojilerde yer alan, tasarım ürünlerinin ya da planlama yöntemlerinin artık çok karmaşlaşması argümanı ve çözüm olarak ise tasarımcının ortamda/mekanda bulunan her tür bilgiye ulaşarak tasarım sürecinde yer alacak tüm faktörlerin ihtiyaçlarına uygun çözümler üretmesinin istenmesidir. Ancak bu durumda tasarımcı faktörler arasında bir bağ haline gelir ve yaratıcılığını gösterebileceği bir zemin bulamaz.

Bu problem çözmek ve yeni bilgi birikimi elde edebilmek için , ‘hata’ müdahalesiyle gelişecek bir tasarım örneği kullanılabilir. Bu sayede tasarımcı, çevredeki faktörlerden yeterli derecede bağımsız hareket edebilecek yeni bilgi deneyiminden faydalanarak ilham alabilecek ve yaratıcılığını taşıyacağı sınırlandırılmayacağı bir alanda hareket edebilir.

Anahtar Kelimeler: Tasarım, Hata, Yaratıcılık

To My Parents

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CHAPTER 1

INTRODUCTION

1.1. Definition of the Problem

Designers try to solve problems by making the right choices for the needs of people. The design is creative solution for the needs in a particular task. When solving a problem, designer makes varying choices to overcome the obstacle s/he is dealing with, in order to create a “new thing”. In addition to this, design is also an imaginative look to the problem mentioned. Imagination creates new possibilities for us to widen our perceptions and these perceptual changes present situations to future possibilities. In addition, imagination, which has some unseen errors, is a creative process and cannot settle by the solution for what is current; it creates future possibilities with new problems. In other words, our imagination, which involves many thoughts, is not experienced yet so they are vulnerable to the future needs.

However here is a problem in the design process. Design is a creative process and involves imagination. It's not possible to both solve problems by making all the right choices and also to be imaginative yet it's started to be thought as a process which analyzes all extensions of the current problem and connects all agents in order to provide best solution.

Modern design methodologies provide a role to the designer to be a creative connector between agents; agents, agents' needs and their priorities can be pre-assumed that inspiration is only possible in between boundaries of they set.

Inspiration, which is the most significant asset of the design, should be free to be built in the designer's mind hence the product¹ can be seen creative and inspiring.

For further analysis on the problem to find path for inspiration, this study starts the inquiry with the initial concept of knowing in order to understand the evolution of world's intellectualism and as well as reaching error's role on this development by analyzing knowledge over Kant's Sublime and Plato's Absolute Knowledge. This thesis tries to find clues between error and inexperienced knowledge while examining the difficulties of moral behavior of error usage which is considered as an answer for crawling inexperienced knowledge more rapidly in order not to be stuck in modern corporative methods. Thesis finds it important to debate morality for creating an amoral behavior, hence to encourage designer of being amoral in the creative process of her/his own rather than being an adjuster processor that handles analysis, synthesis and evolution between information in order to provide optimum solution.

1.2.Aim and Scope of the Thesis

This thesis tries to understand the conflict in modern design methods which put designers in a task of a controller role in order to release product in an optimum way (by considering that the optimum way is morally acceptable way) yet restricting the creativity with the agents, and provide another solution on how design process has to be re-thought with an error, because design seems to be a sophisticated product of mind fuelled by unbounded inspiration and should produce solutions which are not morally acceptable but associated with otherness concept of society.

In the first chapter, knowledge is studied for better understanding of an error. Without reaching an absolute knowledge, every experienced thing has an infinite

¹ "The product" can be building, urban decision, or a plan.

sum of error and this is illustrated as disks in this chapter for better understanding. Also inexperienced knowledge is further studied and Avant-garde era is investigated because of the similarities between avant-garde's inspirational failures and error's knowledge gaining possibilities.

The second chapter evolves around how people and authority reacts to the error. Thesis grounds its argument over the notion of otherness to understand both error-oriented design and provide similarities with anti-heroes. Anti-heroes' acts are not bounded with the regular peoples behaviors yet people can understand why they are taking action to achieve a greater mission. These similarities construct the backbone of error's mission on design by being amoral and not affected on the ethics of design methodological approach.

Thesis provides an answer for designer's situation in the modern design methodology in the last chapter, and studies contrasts and errors between Broadway Street and Commissioner's Plan of 1811² to understand the re-appropriation of public spaces in intersections between them which are actually was not a part of the decision of the plan.

² Commissioner's Plan of 1811 is original design plan of Manhattan that creates grid system and shapes today's Manhattan.

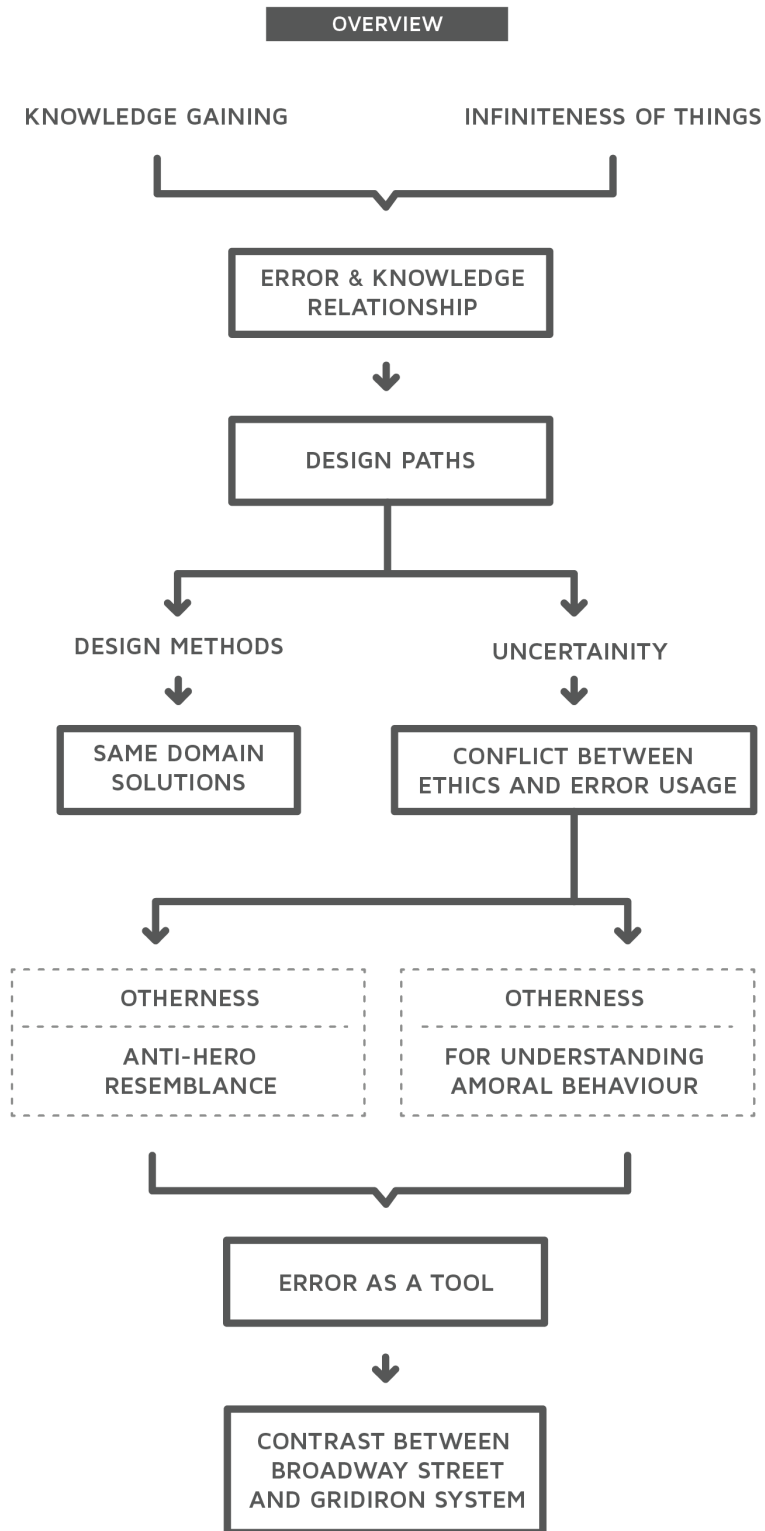


Figure 1: Overview of issue flow

1.3.Methods Used

This thesis provides knowledge definition over approaches to the infinite (*absolute, sublime*) and singularity of all knowledge in order to state knowledge gaining mechanism by experiencing things. By doing this, study reaches the ‘error’ term and gives another meaning for the concept of exploring inexperienced areas of knowledge.

This study covers and provides statements about ‘space-error’ from knowledge to its reflections on the urban surface by making debates over design. It’s not this thesis concern that design is something like art or not, yet some of the debates over design have art resemblances, by putting creativity in the center of both. It’s not the technic or their idiosyncratic aims that bring them together but their very core of existence of creativity. Creativity is a significant element for design and study aims to provide a solution in order to reveal it in the process of design.

‘Error’ usage on purpose is not an ethical thing while design methods are admitted as a real path for the design. Thesis tries to investigate moral and amoral of things in order to understand ethics may not be a concern for error usage for good manners. ‘Error’ can become a anti-heroic tool while the aim stays on the good manners under the term of ‘otherness’.

Researches about ‘error’ are examined while studying urban pattern examples as case studies for deeper understanding and covering the unusual pattern solutions. Examples of the cities are Barcelona, Biga(Çanakkale), Paris and Manhattan(New York). Thesis aims to explain outcomes of unusual acts in the urban surface to understand effects of ‘error’.

CHAPTER 2

KNOWLEDGE

2.1. Introduction to Knowledge

Plato asserts that the ultimate knowledge is "the absolute knowledge" and it can be found in "psyche" of self. Psyche is the form of our consciousness which gives us sensibility and helps to understand things, thoughts, and the world surround us. It is admitted as core of us and generally correlated to "the spirit". According to Plato, after the birth, humans lost their ability to understand the absoluteness (it's a state which involves infinite knowledge) because of the shock of becoming a physical entity. After the birth, humankind starts to gain new knowledge which is miniscule comparing with the absolute knowledge.³ Plato states that

[66d] for the sake of the body. We are slaves to its service. And so, because of all these things, we have no leisure for philosophy. But the worst of all is that if we do get a bit of leisure and turn to philosophy, the body is constantly breaking in upon our studies and disturbing us with noise and confusion, so that it prevents our beholding the truth, and in fact we perceive that, if we are ever to know anything absolutely, we must be free from the body and must behold.⁴

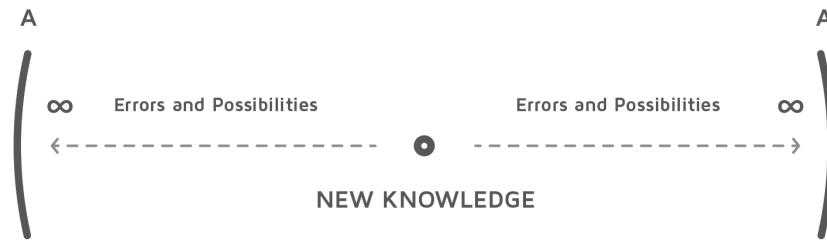
³ Plato. Phaedo 86b. Fowler, H. (1987). Plato: In twelve volumes (Vol. 1). Cambridge, Mass: Harvard Univ. Press. Retrieved from <http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0170%3Atext%3DPhaedo%3Asection%3D86b>

⁴ Plato. Phaedo 66d, Fowler, H. (1987). Plato: In twelve volumes (Vol. 1). Cambridge, Mass: Harvard Univ. Press. Retrieved from

Our physical reflection lacks of absoluteness with other physical objects around (ex. ground, world, universe), yet our reason can understand/remember things and address the knowledge with our soul which hasn't had a proper link to physical universe. Progress can be materialized through mind and can never achieve absolute knowledge because it isn't infinite as soul's capacity.

From Plato's dictum about knowledge, some deduction can be made. Universe's lack of absolute knowledge causes an error gap which allows us to develop things. Thinking from counter point, if there isn't any error in the universe than there will be no need to develop things because infiniteness of things becomes a finite understandable object. No need for producing another designed object or city in an infinitely perceived and solved universe because there is no other thing to know or there is no other space to be shaped. If today humankind can create forms in space through knowledge, it's because of the infiniteness of absolute knowledge and our error dependent development via using our reason.

Knowledge & Absolute Knowledge Relationship



A - Absolute Knowledge (infinte)

Figure 2: Knowledge and absolute knowledge relationship in a circle (infinite absolute knowledge circle). There are infinite numbers of possibilities and errors than produced knowledge.

Accordingly, thinking the absolute knowledge as an ultimate point of development, experiences, which are made by humans in their lifetime, seem unbearably small and constitute the inexperienced part of the observable universe (is large as infinite) (Figure 2).

In Paul Crowther's book *Kantian Aesthetic: From Knowledge to the Avant-Garde*, Crowther explains knowledge over Kant's Aesthetic Theory and criticizes it over Avant-garde movement. In *The Kantian Sublime Revisited* Chapter, he emphasizes that absolutely conclusive terms can never be determined because of phenomenal items' 'greatness' is always bounded to comparison of things. In a similar way, any phenomenal item cannot be absolutely great, so there is always a bigger one than any item conceivably.⁵

⁵ Crowther, P. (2010). *Kantian Sublime Revisited*. The Kantian aesthetic: from knowledge to the avant-garde. Oxford, UK: Oxford University Press. p. 175

For Kant, imagination and reason perceive things differently; there is a conflict between what is seen by them. In his book *Critique of the power of judgment*, Kant observes

Just because there is in our imagination a striving to advance to the infinite, while in our reason there lies a claim to absolute totality, as to a real idea, the very inadequacy of our faculty for estimating the magnitude of the things of the sensible world awakens the feeling of a supersensible faculty in us; and the use that the power of judgment naturally makes in behalf of the latter (feeling), though not the object of the senses, is absolutely great, while in contrast to it any other use is small.⁶

The greatness beyond all possibility of calculation or imagination is regarded as ‘Sublime’ that represents the quality of greatness in any aspect of our intelligentsias. Crowther emphasizes

When presented with a vast phenomenon, reason demands that we comprehend its phenomenal totality. Such a totality, however, exceeds our power of imaginative representation, and, in so doing, suggest the idea of infinite continuation. Now, whilst such an idea exceeds what can be imagined, it can, at least, be thought as a rational idea. In this way, imagination’s inability to represent a phenomenal totality makes us aware of the superior cognitive scope of our rational, ‘supersensible’ aspect. It is this being which is sublime, in so far as, in judgments of the sublime, even the vastest forms of nature are put to use in its service.⁷

⁶ Kant, I., Guyer, P., & Matthews, E. (2000). *Critique of the power of judgment*. Cambridge, UK: Cambridge University Press. p. 128

⁷ Crowther, P. (2010). *Kantian Sublime Revisited. The Kantian aesthetic: from knowledge to the avant-garde*. Oxford, UK: Oxford University Press. p. 175

Ability to subsequently identifying a sublime event's enormity indicates the superiority of cognitive ('supersensible') province. In other words, for every phenomenon, much bigger thing can be found and this infiniteness of things exceeds our imagination's capability of representation (Figure 3).

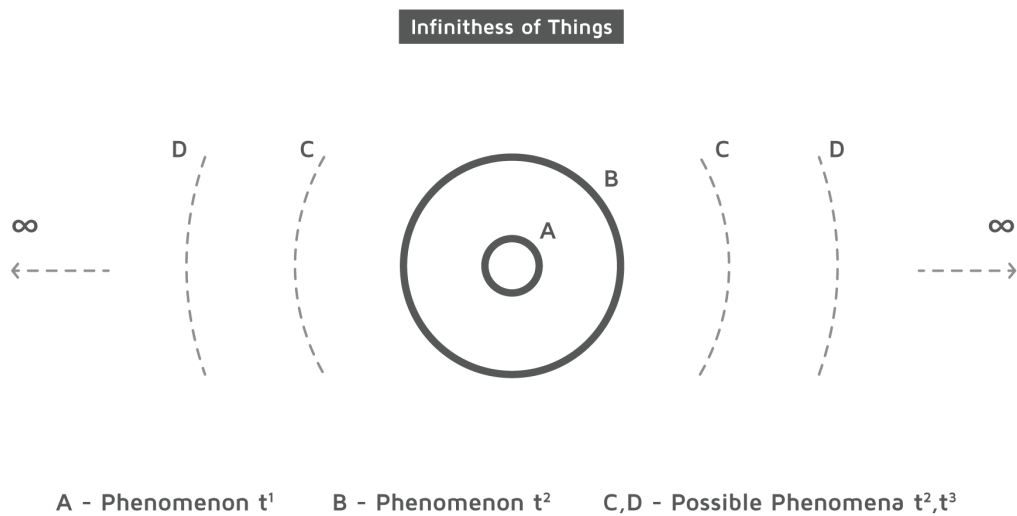


Figure 3: Infiniteness of things

Crowther states

The point is, as *The Critique of Pure Reason* has shown, that if infinity as a whole is to be thought of coherently and completely this presupposes a 'noumenal' substrate which limits the infinite (in metaphysical rather than spatio-temporal terms). This substrate is the seat of our rational (and moral) being. Kant

holds, therefore, that imagination's inadequacy to present the infinite draws attention to the superiority of our rational being.⁸

2.2. An Example for Infinity

Error concept can be understood by drawing an analogy with the series of infinite disks. In these series, every disk carries a knowledge particle and they are the parts of absolute knowledge. Position of disk can affect whole sum; even if there is only one error, whole series will be affected and this causes imperfect knowledge set.



Figure 4: Knowledge disks

When these imaginary series work and some of these disks start to rotate into new positions, new knowledge is gained. While the knowledge is experienced, these disks turn to find what are found and create a new sequence yet it is far from the absolute knowledge (by knowing that these series are infinite) (Figure 4).

⁸ Crowther, P. (2010). Kantian Sublime Revisited. The Kantian aesthetic: from knowledge to the avant-garde. Oxford, UK: Oxford University Press. p. 177

For instance, let's take two disks from the series; one of them has letters which can be used as codes, and the other one has color names that can be used to define another variable. Their sequences can be one letter and one-color name such as D-grey or A-yellow. Assuming that there is a perfect sequence which is A-Yellow, every time disks turn (this event represents gaining new knowledge), plate can show such series: B-yellow, C-orange, A-white, A-green, D-yellow. These series can have both A and yellow in different positions however it cannot be said that one of the sequences' magnitude is higher than the other. (Such as D-yellow is better than B-yellow or A-green is better than Z-yellow).

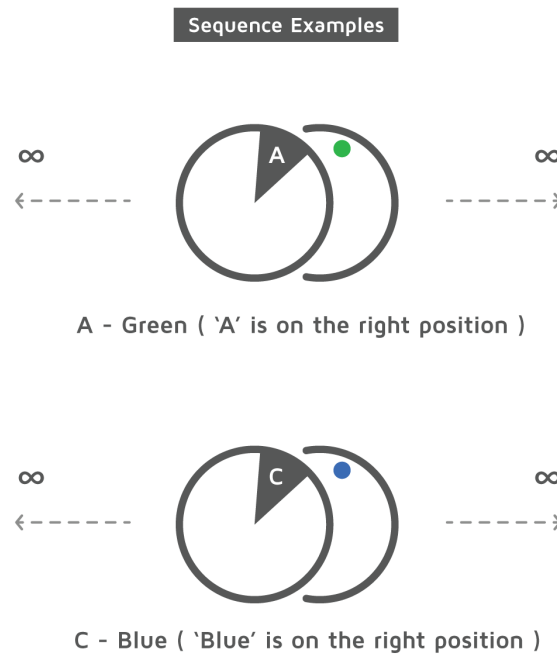


Figure 5: Sequence examples of disks (Infinity represents infinite amount of disks)

In an infinite series which consists of infinite variables, experienced part is so small yet inexperienced part of the series is infinite. Holding any knowledge as final may damage the chance of experiencing and crawling knowledge over the inexperienced part because error (inexperienced disks potential error and

experienced disks' error) is infinite. In other words, only chasing the pre-experienced paths causes limited development.

2.3.Error Concept

In this thesis, 'error' represents the idea of doing things different than conventional methods and pre-determined paths. Error comprises eccentric behaviours and their outcomes that emerge in a new domain rather than conventional methods. It's important to understand that the *error* is extracted from the lexical meaning of error while *error* roots in it. It is identified as an act that provides varied solutions and outcomes while experiencing the inexperienced side of design thinking/knowledge. *Error* represents 'eccentric' while conventional methods provides 'normality'.

The *error* concept represents the idea of experiencing the inexperienced area of errors rather than using same old knowledge on development. *Error* concept offers another path for designing and thinking about problem solving mechanisms. This path can require new equipment and technics so it may be hard to maintain the process yet it reveals much more knowledge than crawling the already experienced things.

This path can be blamed as time consuming, and questions can arise: 'is it useless to employ this path to reach the aim? Will finished work be relatively 'bad'? *Error*-oriented design is seemed as breaking the ordered bricks⁹ yet it doesn't intercept the whole picture if the aim is stable.

The concept relies on crawling knowledge from the inexperienced part where following today's concepts cannot carry to. Today's concepts give, to the designers, blueprints about the paths to be followed. Shifts can only be seen in

⁹ Bricks are the knowledge pieces from experienced things.

some cases, and generally these cases are rare, and their technics are prohibited by status quo.

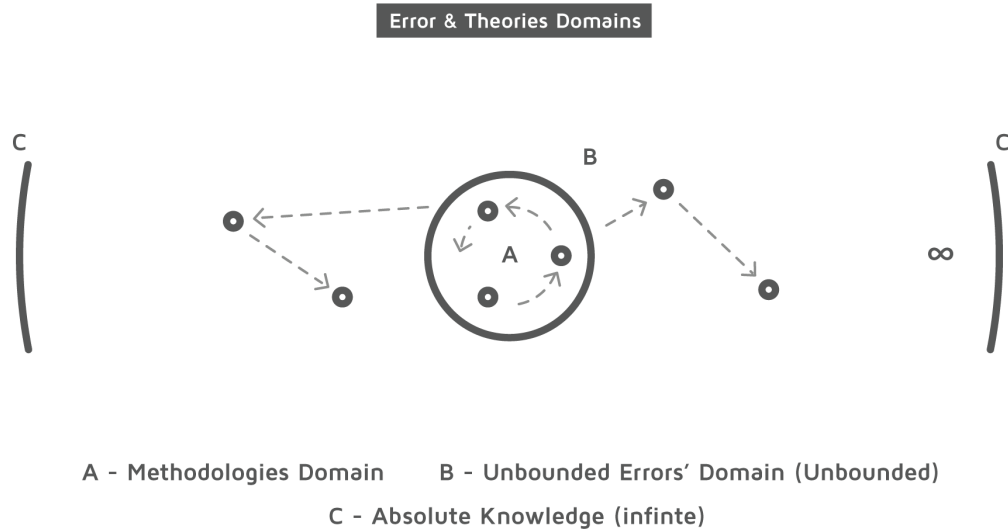


Figure 6: Methodologies domain and unbounded error domain

When designer starts to digress from determined paths and walk over them, s/he restrains his/her self-control because of the limitation of protecting embraced design methodologies although previously defined patterns may not produce forms which can change minds and may not provide eye-opening shifts for development or design.

Even the modern design patterns may provide error resistant forms, failure plays significant role for pushing the boundaries away. Fisher sets forth this situation in his article titled Judgment and Purpose, by writing about potential failure surrounds us in 1987:

Failure itself draws a distinction. Where failure occurs, there is the frontier. It marks the edge of the acceptable or possible, a

boundary fraught with possibilities. This edge mixes certainty and insecurity. It taunts us to try again and tells us firmly stay back. The failure tells us clearly, where our limitations – at that moment – are. A few minutes later, it might be different. This is why the risks of failure add value to success.¹⁰

If failure is a trigger for development, than using it in the solution can be helpful in order to achieve next greatness. *Error*-concept reflects the idea of using error in the problem-solving process as a tool which helps harvesting inexperienced knowledge, in order to see what hasn't been seen before.

For instance, taking *error* concept as a metaphor of neighborhood. In this neighborhood, knowledge is like windows. New leaps occur when the design methodologies are started to be chased and applied in a certain time. These leaps can be liken to the floors of the building, and designer can see the world in an upper height.

In contrast, in *error* concept, designer is eager to get another building in the street and starts to observe neighborhood in a lower level at first but from a different perspective.

2.3.1. Inexperienced Knowledge

Error concept's domain may be different from others, because the domain in question requires different paths contrary to known design technics. These inexperienced areas are like twilight zones where observing is hard therefore this zone's produced experience may require different equipment, tools and technics different than other paths'.

¹⁰ Fisher, J. (1987), Judgement and Purpose, in Feuvre, L., (2010). Failure. London, Whitechapel Gallery, The Mit Press, Cambridge Massachusetts, p. 118

Using old practices can be useless in a zone where experience relies on obscurity. Every difficulty faced while observing this kind of zone may be acknowledged an indicator of gaining knowledge which help designers to produce new ideas and new perceptions from the inexperienced. It can still be thought that any gained knowledge may not be useful in a particular domain if there isn't clear aim for the solution.

2.3.2. Avant-garde for Experiencing New

Avant-Garde is a theory which describes another art after romanticism by aiming to serve ideas on all art forms without giving a priority to technic in the late 19th century. Movement serves different thoughts as manifestos and artists tried to find new paths to tell 'art' in a broader technics. They are also judgmental of what avant-garde makes for the art.

Avant-garde emphasizes radical presentations which carries the shock of the new factor. In this manner, connections between new and old can be changed. New does not have to be completed, it may be incomplete and lean on only experiments. These experiments may contain chance, disorder and chaos in order to explain their selves by following different paths and producing new tools.

Avant-garde radically debates anti-art and anti-aesthetic. Is anti-art possible, can aesthetic be removed from art? Besides, avant-garde revolts against art institutions by asking questions in order to remove the boundaries that were set.

Avant-garde artists debated even the necessity of art and this is an indicator of removing boundaries of art in avant-garde. It controls and criticizes itself by pushing art's boundaries, asking questions and making mistakes. Errors, which cannot be accepted well, become a door to experience more. When boundaries are no longer restrict artists, the playground was started to enlarge. Poggioli tells these experiences' outcomes in his book *The Theory of the Avant-garde*:

The experimental aspect of avant-garde art is manifested not only in depth, within the limits of a given art form, but also in breadth, in the attempts to enlarge the frontiers of that form or to invade other territories, to advantage of one or both of the arts.

11

Avant-garde is a shift for art and design by giving opportunity to the world in order to seek different forms and techniques.

Before avant-garde, painters were obliged to paint beautifully. Technics and color scheme are so important to show works as 'real' and elegant. How artists can enlarge the frontiers of art by drawing a portrait of a king by showing his portrait realistic and powerful? Obviously painting on the larger canvas does not solve such a problem. On the other hand avant-garde experiences what hasn't been observed and applied before. Avant-garde is abstract and dehumanized and it is generated by another generation with passion to tell something not about the 'object' but the 'idea'. Unlike the art movements that find good-looking paintings to the observers important, avant-garde serves ideas. Avant-garde artists try hard on concepts in order to make a new form for 'art'. They investigate new thoughts by considering many technics that can be considered errors as domain of previously art: romanticism. In avant-garde era, art is not examined under its species as art. The main concentration point is seeding and conceding art. This unfamiliarity of art creates new opportunities from inside and outside of art. They asked questions rather than needs by questioning art itself.

The relation between art and design can be questioned due to they cover different domains. These domains are considered as problem solving in design, and

¹¹ Poggioli, Renato (1982), *The Theory Of The Avant-Garde*, translated from the Italian by Gerald Fitzgerald, Harvard University Press, United States of America, p. 133

performance in art. On the other hand, both art and design has core of creativeness in them in order to 'perform' or 'solve problem'. Maitland asserts

After examining the many confusions surrounding creativity and arguing that artistic creativity is not creative problem solving but creative performance, I will suggest that all creativity is a form of human freedom and suggest what a proper hermeneutic of creativity might look like.¹²

'Human freedom' in design can have little less importance than in art and this seems to be stem from the aim of finding a solution rather than just performing creativity. However the need of creativity in design is no different than art, otherwise complexity claim of design process (with the other agents, non-designers) leads designer to a different role rather than being a creative individual.

¹² Maitland, J. (1976). *Creativity*, in *The Journal of Aesthetics and Art Criticism*, The American Society for Aesthetics, 34:4, p. 398 Retrieved from: url <http://www.jstor.org/stable/430575>

CHAPTER 3

DESIGN PATHS

3.1. Questioning Design Methods

In this thesis, the designer is discussed/mentioned not only as a designer but also an observer and at the same time an investigator for experiencing space. Designer (observer and investigator) has a predetermined job to find and add pieces in order to gain knowledge while solving the defined problem. This path consists of three parts, which are observing the problem, making a statement and using methods to solve them. In order to solve problem correctly and succeed, all information related to the problem has to be considered carefully, so that not to make an error.

John Chris Jones, in his book *Design Methods*, studies modern design methods after the traditional methods which are seen inadequate for today's product development, urban development and architecture. He asserts that

In getting away from drawing, and from the conventional ways of thinking about design, the theorists may together have produced the very thing that is needed to overcome the weakness of traditional designing, that 'thing' being variety itself, a greater variety than that which exists in the experience and expertise of any one designer, of any one design profession or, for that matter, of any one design theorist.¹³

¹³ Jones, J. C. (1992). *Design methods* (2nd ed.,). New York: Van Nostrand Reinhold. p. 4

Development involves a complex procedure which many agents participate in order to solve linked problems. Design isn't a draw and do thing anymore and information driven pattern should be used for adopting different cases. It's important to fit product makers' aims or in urban development, urban needs, by finding best option (cheap, available, fast etc.) to make a future foresight by using the information. Reason of this, Jones explains

What, in all this diversity, has happened to designers? Have they, under the modern pressures to become more scientific, to participate and to coalesce, lost the special quality that distinguished them from those who do 'uncreative' work? Surely the answer is 'yes'. 'Yes' because designing is outgrowing its reliance upon the mysteries of being able to draw and of being able to foresee future situations in visual form: and 'yes' because all the non-designing professions have now to plan their activities on an industrial basis making use of man-machine systems wherever possible.¹⁴

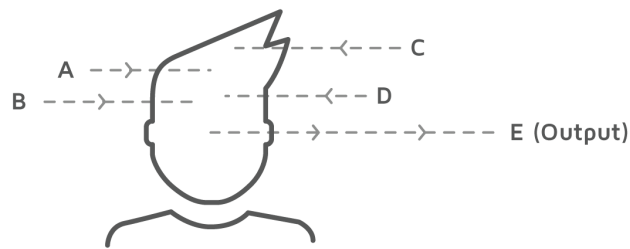
This industrialism, in present, makes this process easier to handle and understandable but at the end it becomes more 'uncreative' process. Even if 'non-designing professions' starts to involve in the production or planning, the process is wrongly seen as a 'design'. Jones states a term that is named 'imitation of change in man-made things' to achieve other objectives in the development process before design drawing takes up¹⁵. However this is an uncreative work and it is just about combining only the needs. Design goes simultaneously with other professions by a chance, if not, it is started after information is provided and decided to be used. In both situations, this design course is still hard for designers to imagine future by using only today's needs. Jones asserts

¹⁴ Ibid, p. 5

¹⁵ Ibid, p. 6

Both artists and scientists operate on the physical world as it exists in the present (whether it is real or symbolic), while mathematicians operate on abstract relationships that are independent of historical time. Designers on the other hand, are forever bound to treat as real that which exists only in an imagined future and have to specify ways in which the foreseen thing can be made to exist.¹⁶

Designer as a Connector Between Non-Designers



A,B,C,D - Non-Designers' Input E - Output which connects needs of A,B,C,D

Figure 7: Designer as a connector between agents and non-designers

Design for future by bounding today's analysis and condition by collaborating with other 'non-designing' professions can be seen as a proper method presently but it limits inspiration of the designer by setting boundaries. It is questionable to say that complexity of production or planning can be achieved only by restricting design inspiration. Jones agrees

¹⁶ Ibid, pp. 10-11

The writings of design theorists imply that the traditional method is design-by-drawing is too simple for the growing complexity of the man-made world. This belief is widely held and may not require any further justification. However, it is not obvious that the new methods that are reviewed in this book are any better.¹⁷

Systematic procedures lock up inspirational decisions of designers while traditional methods are too simple for complex problems. It cannot be said that present design methods should be abandoned fully; on the other hand they have a big problem with the creativity. Jones mentions

This recurrent difficulty suggests that the new methods that have appeared so far are only partial solutions to modern design problems. If this is the case we should look more closely at the reasons for abandoning old methods before developing any more new ones.¹⁸

Process becomes less inspirational and more industrial, design experience stuck on a definite production line of non-designing professions. In sublime, where our imagination can never reach there ever, designer still stuck on simple narrow problematic modern methods for production or planning. It cannot be said that we produce more sophisticated solutions (in relatively) yet the possibilities are far beyond than sublime. While any design can never be thought as completed because of the absolute knowledge's infinity, these small movements resemble the old traditional methods of design.

Every experience can be gained from chasing different paths in design, and all of the paths are going to have bunch of errors, which will be revealed for human

¹⁷ Ibid, p. 27

¹⁸ Ibid, p. 27

observation from time to time. Jones tries to combine methods in an intelligible background yet these methods only define a path, in order to link design process to production or planning. In his article, *The Future Isn't What It Used To Be*, Victor Papanek examines that the scientific reasons may not be the best solution for product design, planning or architecture. He states

Many designers are trying to make the design process more systematic, scientific, and predictable, as well as computer-compatible. Their attempts to rationalize design by developing rules, taxonomies, classifications, and procedural design systems are extreme examples of trying to provide design with a respectable scientific-sounding theoretical background or, at least, a theory-like structure that smacks of science.¹⁹

Papanek asserts that these scientific methods usually cause reductionism and ineffectiveness because of using reason and intellect in order to achieve high-tech functionalism in design however psychic needs of humans are forgotten for clear path.²⁰

Design methods, which designers mostly rely on, do not provide error-free objects or spaces. It is clear that every path or technic has errors. There isn't any set of rules that define every action to be error resistant. Selecting rules or technics only creates new opportunities for the designer in a definite set of rules. It may be said that it's easy to control for faster planning with other involved disciplines but sticking in only one path (scientific, rule-based design methods) can reveal same errors and same knowledge.

A new product can be produced with using experiences and analysis can be made by using scientific data in order to remove the vulnerability of actions to be made.

¹⁹ Papanek, Victor (1995), *The Future Isn't What It Used To Be*, in Margolin, V., & Buchanan, R. (1995) *The idea of design*, Cambridge, Mass: MIT Press. p. 56

²⁰ *Ibid*, p. 56

”Correct ways” build relief around the product that is going to be designed. Designers, most of the time, hold these correct ways to remove vulnerability from their products and for connecting a systematic process which is driven by industry and needs.

In his article Papanek tries to investigate the historical methods’ superiority over modern ones and gives examples over environment. The kind of complexity can be found in environment and it helps to rise our functioning.²¹ He investigates on our life style on buildings and finds this wrong. He claims

The problems of sealed buildings are compounded by “cooling-tower drift,” the presence in the air of water droplets so tiny they can penetrate, unnoticed, deep in person’s lungs. Sometimes the fresh air intake of one high-rise building is so close to the cooling tower of another sealed building that drift will transmit bacteria growing in the cooling tower water more efficiently than breathing outdoor air.²²

This is a clear example of a failure which mainly stems from selecting modern design methods in order to find an inspiration. In this example high-rise building’s inefficiency for reaching outdoor air causes a problem, and the solution neither is good nor inspiring. Major problem was started when building high-rise buildings that are actually sterilized boxes Designer is forced to solve a problem which is actually inside of another big one. Papanek summarizes

..environments speak to us in a number of ways, which can be listed in order of magnitude. These universal environmental elements consist first of those that are inborn, innate–archetypal

²¹ Ibid, p. 58

²² Ibid, p. 62

elements that apparently rise from the collective unconscious of humanity.²³

Breaking links from the present needs and asking questions differently can cause shifts. For example ask question for cities; do we really need these asphalt roads? Maybe the roads are the error itself and we polish harder and harder to make them more reachable for everyone. In our developed cities, we are using methods, tables, and theories in order to make them ‘working objects’ not make them ‘living objects’. Papanek asserts

To sum up the success of old and the failure of modern community design in one sentence: ancient planners, recognizing the invariable Aristotelian purpose of why people live in communities, put all their talent into the building of the communal nucleus: inns, churches, and city halls. The rest of the settlement then followed naturally. In contrast, modern designers are forever building the rest of the city. But without a nucleus nothing can be held together. There are difficulties now in conceptualizing a nucleus, since we have become convinced—falsely—that every age has a different purpose; but, by the time we might discover our own, it will have run through our hands like sand.²⁴

In this case, when designer starts to collaborate other agents exceedingly, s/he becomes a machine without inspiration

For example, avant-garde era of art is a breaking point for the romanticism that only transfers painting technics which provide more realistic reflection of the real object from generation to generation. If this shift did not happen in art, and artists stuck on these classical era techniques more time, our crawling knowledge skills

²³ Ibid, p. 59

²⁴ Ibid, p. 64

might be poor today. Artists in avant-garde era made possible to think different from the rest. So in design, questions should be asked: Are there any other paths to be chased for gaining more experience? Would design be able to achieve this level of knowledge if we didn't interrogate the methodologies or theories?

If design methods are not secure as mentioned earlier from Papenek's high-rise building example, then putting boundaries ahead of creativity cannot make any sense because they are vulnerable too. If creativity were the core of design, than it would be good not to follow one path populated with design methodologies. This will bring us to a question which is the core and contains and composes of all other questions: Are designers looking at only one direction that leads them collecting knowledge with a blessed problem-solving path? Are there any other ways to collect knowledge rather than this path?

Jones asking for better methods of designing in order to solve problems caused by man-made things like traffic jam in his book, and states

Perhaps the most obvious sign that we need better methods of designing and planning is the existence, in industrial countries, of massive unsolved problems that have been created by the use of man-made things, e.g. traffic congestion, parking problems, road accidents, airport congestion, airport noise, urban decay and chronic shortages of such services as medical treatment, mass education and crime detection.²⁵

In Jones statement, searching for answer is started from the ending of the production process line by thinking that the causes are the products. However the problem may be the cities false structuring and solution can be found in Aristotelian dictum of reasons which push people live as communities. Designers don't need better methods; on the contrary they need inspirations. If designer has

²⁵ Jones, J. C. (1992). Design methods (2nd ed.,). New York: Van Nostrand Reinhold. p. 30

no sufficient power on changing things what s/he wants to be, then being a connector between agents is not helpful for inspirational products and cities.

3.2.Failure Success Relationship

If the acceptance that success is an indicator of knowledge is increasing, failure pushes the object's form or material to cope with the newly developed task. If failure can be solved, then there is a success. Interplay between success and failure make improvement possible. When you need something (in present), you should push the boundaries away in order to meet the needs with solutions.

Every experience, which is gained for seeking solution, produces knowledge. Need and solution relationship repeats itself in circles because needs also stem from new knowledge. If you don't need extra things from the tool²⁶ you are using, you will keep using it. Nevertheless lack of knowledge on the object seen as 'error' which stem from today's knowledge that relatively larger than the past knowledge.

Using *error* as a tool in the design process and preceding a new design should not make us think that we are going to fail because of what we use. Objects and cities will fail because of improving knowledge since knowledge gained from experiences is so small considering the absolute knowledge.

Accepting that knowledge is infinite and knowing that the produced part of it is equal to zero because of limited time of humankind, all object were produced in the past, present and future is full of error in limited time period so every object will fail, in order to be solved from time to time. Today's knowledge withholds to observe product's errors because of this reason yet the agenda of good design is seen as a moral thing. In this respect, appropriate aim and appropriate solution for the true needs for the current case has to be considered. Morality drives people to do what is best. Act with the 'experts' by understanding everything, every data

²⁶ Any man-made object like pen, book, car etc.

(whether they are useful or not) can cause repetition that doesn't help development. Koberg and Bagnall states

Everyone seems to be waiting until they know it all; until they are the world "experts" before they can speak up or act up to a situation. Yet no one ever seems to become that world "expert".²⁷

Using *error* as a tool in problem solving is against to design's morality and is disapproved by the authority. Even though it seems that designers are allowed to show their creativity, certain design patterns and given design methods are expected to be reflected in designs by them.

However, can designing in good manners be the only way for the solution? Can it only be represented in a good act or it can be about reaching to the good aim? Knowing that not everything is in harmony, bad design can be attached to so many products or even to the layout of cities. So why design can be blessed by following the models that are admitted as 'good' in order to reach a holy aim?

3.3. Enjoying the Uncertainty

If there is a case that is about building a yellow Lego cube, then the parts of the Lego should be yellow which is a serious requirement. However building a yellow cube statement can also be a problem itself, experience gained from this situation only contains yellow bricks' solutions

There are other paths, which include using other colors for building yellow Lego cube problem. Tendency to choose yellow color ignores all other paths that can generate different knowledge set. Knowledge gained from the building yellow

²⁷ Koberg D., Bagnall J. (1974). *The Universal Traveller: A Soft-System Guide to Creativity, Problem-solving And The Process Of Design* Los Altos: William Kaufmann Inc. p. 14

Lego cube with yellow bricks creates knowledge that can only be used relatively to this specific problem. So if the absolute knowledge is sum of all knowledge pieces, the desire to build a yellow cube can most probably be the wrong statement.

Important point of this approach is that any information acquired from experiences may not stay true at some length. Knowledge accepted as 'true' in the relative condition may fail in order to stay true and turn into wrong and ineffective. Progress with making differentiation between true and wrong may only help for the status of output relatively.

Making error as a taboo for design and only caring it after showing up by itself (as an effect for the needs) and turning designers into machines (using design methodologies) cannot produce inspiration. Defining secure roads are the traps for exploring new methods and using new equipment. If designer wants to experience new methods, she/he should take a risk of using *errors* in order to explore uncertainty. For the domain of art, Beckett asserts that in order to be an artist, one must presume to stand failure.²⁸ Designer has also been inspired rather than connecting outputs.

Experimentation beyond what is already known can provide new way of seeing, which cannot be seen when examining over already known things. These experimentations can improve creativeness by seeing the new in a different perspective. It is like a trip in a jungle searching a way to hold on in order to reach the place you should go without any light in the night. In such situation, first action may be using your hands in order to feel cold, warm or wet which you cannot get with eyes only. Trip turns into a path of another way of seeing, seeing with your hands in the night. Making things work around in this jungle, you should start thinking and acting differently.

²⁸ Samuel Beckett (1949), *Three Dialogues with Georges Duthuit*, transition, no. 48; Reprinted in Samuel Beckett, *Proust & Three Dialogues with Georges Duthuit* (London: John Calder, 1965) p. 119

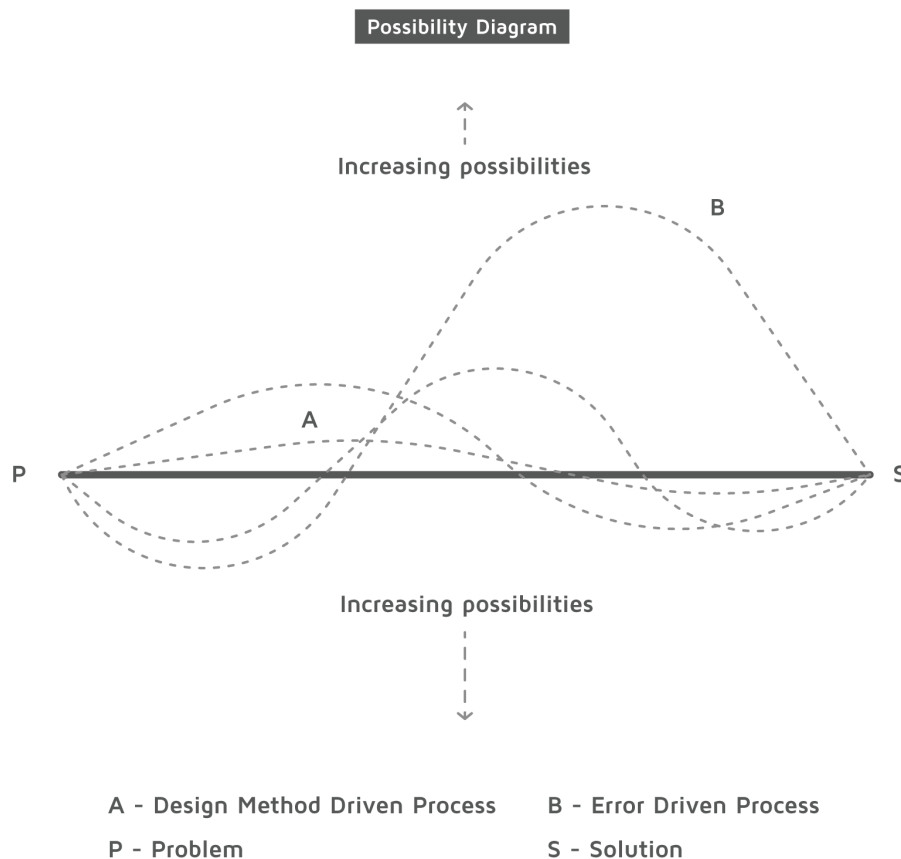


Figure 8: Increasing possibilities with errors

Result-oriented search for progress only provides tools for the specific ground, which already tested repeatedly and generates similar progress and products. If someone uses this kind of progress, one can ask these questions: "Does it have a unique value" or "Does it force you to make things differently", and get no satisfying answers rather than "No, but..." This stems from being in the same fishbowl with your problem. You use equipment that only found in this fishbowl, nothing from different place. There is a glass out there, which is holding your imagination at specific level.

Engaging with the failure, in an unclear and unsafe path, designer should use different equipment. Using new equipment for the problem may only gives you

the chance of breaking limits in this path. Making *errors* or passing through new hypotheses develops creative thinking in design even in scientific experiment. According to Popper,

The intellectual weapons which will be needed at a later date may be very different from those which anyone has in the store. For example it is almost certain that nobody trying to make the concept of simultaneity more precise would, before the discovery of Einstein's problem (the asymmetries in the electrodynamics of moving bodies), have hit on Einstein's "analysis".²⁹

Design methods are seen as holy and it is assumed that development or producing mechanisms will be broken without using them because today's producing mechanisms are too complicated to be creative. Creativeness is much more like a glue between analyses and agent's desires in production. It is also believed that development should be done step by step in order to avoid failure. In a success-oriented production, failure becomes a judgmental term rather than inspirational. In success oriented design thinking, replicated works cover the production without involving any inspiration sparks.

Uncertainty of things gives chances to change things in a completely different way which is free from methods and agents. Daring to be wrong and even using error in solutions can ensure inspiration that connects unseen dots with today's products³⁰. Creativity requires uncertainty about the end product and this separate it from any engineering or algorithmic task. About the artist's creative approach, Maitland states

²⁹ Popper, Karl (2002). 'Unended Quest: An intellectual Autobiography, Routledge, New York, p.

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³⁰ Cities are also used as a product here

If he knew completely what he was about, where his work was heading, he could not be engaged in creative work. To foresee the results of creative work is a logical impossibility given this view: if the artist has a clear idea of the results toward which he is aiming, then either he is not engaged in creative work, or the clear idea is itself the final result of a creative act that has already occurred.³¹

When explaining the impossibility of foreseeing the results, Maitland points that artist still needs a defined mark. He asserts that artist has to know or sense the path's destination in order to make aesthetically suitable selections and fixing his mistakes.³²

Defining creativity different than what is it in the art causes less valuation. In production, despite that creativity is not a plaster between the production lines, we change its meaning to it for preventing reverse effects of 'human freedom' on the production. Koberg and Bagnall states that

When the human product emerges as a non-creative, average sample, we do not complain; instead we alter the meaning of creativity to describe other human abnormalcy activities such as condoning high productivity as a creative act.³³

Producing products, houses and cities is less time consuming, more economic and less questionable while staying on the known path rather than being experimental or performing creativity, however it cannot help us to improve or to imagine new things. Koberg and Bagnall describes

³¹ Maitland, J. (1976). *Creativity*, in *The Journal of Aesthetics and Art Criticism*, The American Society for Aesthetics, 34:4, p. 398 taken from: url <http://www.jstor.org/stable/430575>

³² Ibid, p. 398

³³ Koberg D., Bagnall J. (1974). *The Universal Traveller: A Soft-System Guide to Creativity, Problem-solving And The Process Of Design* Los Altos: William Kaufmann Inc. p. 9

Creative problem-solutions are those which help us to imagine more advanced problems or which provide us with the models for solving other, similar problems and which generally turn others on to their correctness, obviousness or to their simplicity.³⁴

The creativity is a state that is based over regular patterns and provides new expanding possibilities of current state of any design process. Creativity is not the thing that many non-designers and some designers think. It is a unique process that leads us to produce significant things that never thought before. Dimock states

Creativity is originality. But it is more than that. It is cringing something into the world that is relatively new and possibly revolutionary in its wide circle of effects. Like atomic fission. Or understanding the circulation of blood in the human system.³⁵

By enjoying the uncertainty of new paths, it is possible to experience more and develop and think new things. It can only be possible when using creativity in order to be free from distractions, methods, and agents.

³⁴ Ibid, p. 9

³⁵ Dimock, M. (1986). *Creativity*, in Public Administration Review, American Society for Public Administration, 46:1 p. 3 Retrieved from <http://www.jstor.org/stable/975436>

CHAPTER 4

MORAL AND AMORAL THINGS

4.1.Morality

In the famous fable, tortoise wins the race against the hare even hare is faster yet extremely arrogant. He takes a nap while race continues because he thinks that he is much faster than slow-moving tortoise. After he wakes up, he sees tortoise wins the race because he is steady than himself. This Aesop's fable gives the moral motto: 'Overconfidence may lead to loss of a race'.

Morals are the things that society makes in order to control extreme thoughts or not to do evil things. In other words, if you follow a dark path, you will face bad things no matter how you strong or fast. Immorality is morally unacceptable it's made a contrast with the ethics.

Some objects or behaviors cannot be accepted as moral or immoral. It's called amorality which is a condition of being lack of moral values. For instance, stone is an amoral object because it can be used for both good purposes and bad purposes. It doesn't hold a moral value and it cannot be registered as an immoral.

Moeller in his book, *The Moral Fool: A Case For Amorality*, questioning the good and bad concepts over situations and claims that morality may not be inherently positive. He assert that,

Just like an ax, ethics can be deemed good or bad. It's clear that an observer can decide if a tool is being used well or not. But

such a decision does not make ethics absolutely good or bad. Since, in our society, ethics are overwhelmingly observed as being good, I think it is important to point out the opposite, namely that there is equal reason to observe that ethics are bad. And therefore, it may be said with respect to axes or guns.³⁶

Making mistakes intentionally is assumed unethical because it has a destructive effect on development process whether it aims a good solution or not. Design process is associated with a clear analysis and error-free mechanisms in modern design methods like society associate some behaviour as ethical yet these ethical things can change according to different situations. Moeller states that proving good and bad is hard because they are doubtful and continues, “One changes into the other, and the real fools are those who believe that they can judge the goodness and badness of things which, in fact, are subject to continuous change and reversal.”³⁷

There isn't a clear line between good and bad because situations can change or they can be seen different from other perspectives. Moeller tells a story in his book about this kind of perspective and time change over his character “The Moral Fool” who doesn't understand that necessity of ethics and moral perspective are good.³⁸ However story shows that perspective can be about time or consequences that are not visible when considering something good or bad. Moeller states

The story is quickly told. It's about an old “fool” who lives at a frontier fort and who cannot distinguish between good and bad. He loses his horse, and the other people call this bad, then the

³⁶ Moeller, H. (2009). *Is It Good To Be Good? The moral fool: a case for amorality*. New York: Columbia University Press. p. 3

³⁷ *Ibid*, p. 19

³⁸ *Ibid*, p. 5

horse returns with a whole herd of horses, and the others call this good.³⁹

Moeller emphasizes situation's turning out to be good interchanges the role of being wise from moral cleverness to moral foolishness.⁴⁰ It's important to understand that, inheritance of moral values that are considered good may fail. People do not consider every day acts such that reading a newspaper is morally good thing or not. They consider morality only when some important or unexpected condition shows up.

Inheritance of moral values cannot be suitable for such conditions that provide changeable perspectives in time however standardized design process assumes in every design process, variables always stay the same. The idea of being creative in design methods is providing the best solution by using the variables 'creatively' in a given path (providing the best solution for agents' needs) therefore it is expected to be analytical in every step in order to avoid failure, short-comings or overwork. Today's 'ethical design' is like a taboo which imposes ethics as defined terms, specific codes, predetermined design paths and heroic individuals like starchitects⁴¹. These kinds of personas and design methodologies of complex production are approved as moral and many times 'genius' without considering the ethical wrongness of inheritance of morality.

4.2.Otherness

From this point this thesis is going to research on the societies behavioral changes that tweak the good and bad concepts over otherness, in order to accept conditions and people as moral or amoral. For instance, communities are sometimes challenged with amoral behaviors of personalities such as anti-heroes' in comic

³⁹ Ibid, p. 19

⁴⁰ Ibid, p. 21

⁴¹ Starchitect is a description of architects who is gained fame and become a celebrity in architecture and is accepted as idols of architecture.

books. Anti-heroes can be arrogant yet they save people. They do things in that are morally incorrect but the result is fine. Readers'⁴² reactions are different from reflexes for villains by admitting anti-heroes as 'alright'.

Sometimes when people come upon a situation that is not appropriate for our moral values, seeing someone else's background in order to understand why they act wrong comparing our moral values is acceptable. These situations can be understandable when investigating on anti-hero concept because they generally make mistakes and use fatal force against enemies. An explanation of Anti-heroes' backgrounds takes part before stories. By this way, drawing a line between them and us makes our collective normality safe. Anti-hero's enemy descriptions can be different from society's, but their life experience can cause these consideration differentiations.

⁴² Readers / society.

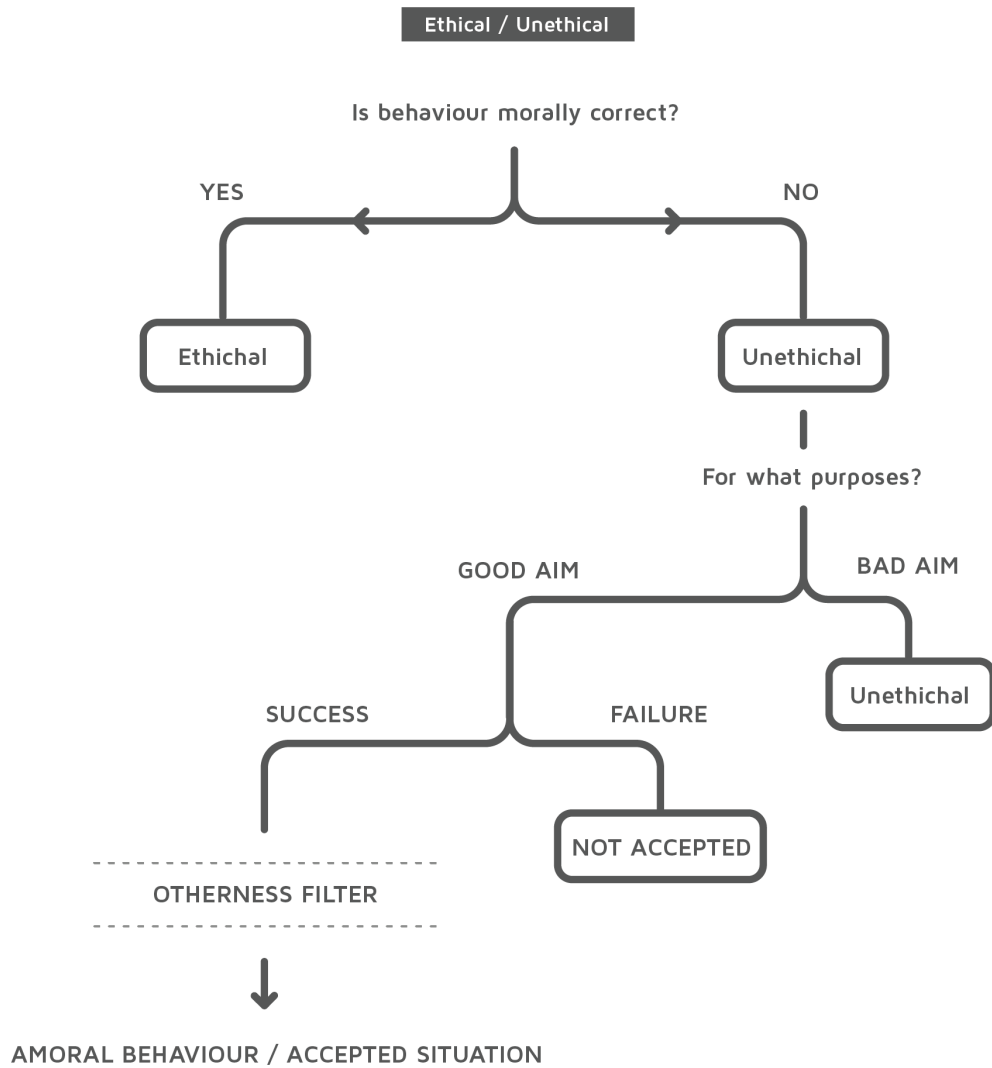


Figure 9: How ethics and otherness work

4.3. Anti-heroes

Heroes are action characters that do all good stuff, love sincerely, save the world, save people. She/he is generally well looking, good shaped and more like a person who is blessed in heaven's rivers. They are brave and defeat the bad peoples/creatures overseeing moral values in hard conditions by consuming all his/her energy for doing good things with a great mind and perfect morality.

In literature there is other action figure like hero yet different, because she/he is not superior in every aspect like traditional hero. They are quite popular in modern literature for being attractive and having strong beliefs like heroes however anti-heroes have an attitude problem and seem antagonist. They have conflicting emotions because of their dark personality or their arising background problems like traumas stem from fears, family problems etc. in childhood. These things evoke significant role in their future personas in life and they have attitude problems to be good acting people. They are not doing good things all time, their perception of right and wrong is twisted because of past tragedies of themselves. Heroes are perfect; anti-heroes are not yet they are also clever and manipulate everyone easily by using forbidden methods like cheating. Spivey and Knowlton assert that:

In Western culture, we often prefer formal logical predicates for our folk wisdom, or our "folk-psychology." We pretended that there are good people like Superman, and there are evil people like Lex Luthor. The anti-hero, however, is not so easily pigeonholed, blurring the line between good and evil. Or rather, he shines his flashlight on that line, revealing that it was already blurred when he got there.⁴³

Nevertheless, the question arises for how do people react to the amoral things those anti-heroes has done. Society has a mechanism in order to stay 'normal' which is called 'otherness'. When regular people see anti-heroes' past and see the differences between their lives and anti-heroes', they understand why anti-heroes act like 'immoral'. Drawing line between them and the 'normal', people can understand this kind of behavior because anti-heroes also act for them for saving the world, helping people and fighting with devils. Normal people do not act like

⁴³ Spivey, M. and Knowlton, S., (2008). Anti-Heroism in the Continuum of Good and Evil in Rosenberg, R. (2008). *The Psychology of Superheroes: An Unauthorized Exploration*. Dallas, Tex.: BenBella Books, p. 135

this; they don't pass through the state of amoral of things, because it is dirty and socially forbidden.

Batman, who is the most known Anti-hero, plays a shadowy figure to protect his city, Gotham (was New York long before) which is full of criminals and which has dark corners citizens afraid of. Spivey and Knowlton assert that,

Batman's reputation as an anti-hero comes almost solely from his preference for striking from the shadows, using fear as a weapon against his enemies, and willingness to work slightly outside the law in order to catch villains.⁴⁴

Later in Christopher Nolan's Batman series, Batman, become a Dark Knight for his city. In order to protect the Harvey Dent's Legacy, Batman tells famous quote to the police officer: 'You either die a hero or live long enough to see yourself become the villain. I can do those things. Because I'm not a hero, not like Dent. I killed those people. That's what I can be.'⁴⁵ Actually, Batman did not kill the cops yet in order to protect and give citizens a reason to fight with the evil. After this part, dogs are sent to hunt Batman, cops started to chase him to protect laws. He has become what Gotham needs, a villain at that time.

Another anti-hero example, who is from the X-men series, is Wolverine. He is strong, fast, has healing ability and adamantium⁴⁶ skeleton. His background pains give anger to him. These motivations from the past make his more understandable for readers and audience. Spivey and Knowlton told that:

'While Professor Xavier's other X-Men usually take great pains to avoid actually killing enemies, Wolverine does not so limit

⁴⁴ Ibid, p. 55

⁴⁵ Christopher, N. (Producer), & Christopher, N. (Director) (2008). The Dark Knight (Motion picture). United States: Warner Bros. Pictures.

⁴⁶ A fictional metal alloy, which is indestructible, is in the Marvel Comics Universe.

himself: “I got no stomach for guttin’ animals. People though—that’s another matter’ (Wolverine vol.1, #1) Although he does avoid causing the deaths of innocent people, Wolverine is not above jamming a pistol into the face of relatively innocent gun dealer in order to find out whom he sold submachine guns (Wolverine vol. 3, #2).’⁴⁷

He protects and helps the good ones although he kills the enemies with a cold heart. He does not bear and punishes ones who make injustice behaviors to good people or him. He acts like a lawmaker, and does not trust the law and lawmakers.

In this respect, Anti-heroes are too good to be a villain and separated from the aim that they hold. Villains are the ones, which desire chaos and don’t mind people as their mid is full of evil intents. On the other hand, anti-heroes also cannot be regarded as heroes because of their ‘evil’ sides while they are acting for good reasons.

4.4. Anti-heroic Amoral Acts and Relation Between Good Aim

Anti-heroes are much more complicated than heroes. They might not choose the moral path like heroes however they have popularity over regular heroes.

Anti-hero culture puts a scene in which audience can understand the hero's amoral acts. Anti-heroes are the ones who do bad things for good reasons. Moral sense of the society cannot be affected by non-moral behavior of "someone who aims good manners but makes bad moves". Audiences no longer bounded by immoral acts of hero because they understand his/her past and celebrate the good aim of anti-hero. This is understandable when making anti-heroes "other" in audience’s eyes.

⁴⁷ Spivey, M. and Knowlton, S., (2008). Anti-Heroism in the Continuum of Good and Evil in Rosenberg, R. (2008). *The Psychology of Superheroes: An Unauthorized Exploration*. Dallas, Tex.: BenBella Books, p. 55

Making someone "other" solves morality problem because of the separation from the society of anti-heroes, and situation, which anti-hero faced, becomes amoral.

Obviously, these kinds of acts are amoral and these may not be excused without making anti-heroes 'other'. Amoral things are not only bounded with the crime, they can be wide as moral values. In the Dark Tower series of Stephen King, Roland Deschain, who is a gunslinger character, searches for The Dark Tower. He has mastered his skills before he was fourteen and gained gunslinger title in Gilead to take revenge from Marten who has an affair with Roland's mother. He sacrifices his hawk 'David' for becoming gunslinger in the fight with his teacher. However after the talk with His Father and Teacher Cort, he is convinced to go elsewhere to a mission before seeking the retribution. Referred in the Book, Wizard and Glass from the series of Dark Tower⁴⁸, Rolland sees a tower in a pink crystal ball and discovers his destiny, which is reaching the Dark Tower. In that time, he also loves a girl named Susan Delgado who saves Roland and his friends from prison where they are prisoner for false charges of murdering Mayor. Roland and his ka-tet (a group of people bound together by destiny/Ka) discovers rebel group's war machines plan and destroy it however he does not save Susan from burning by people who think she conspires over mayor with Roland.

⁴⁸ Dark Tower is a fictional structure that holds parallel universes' shaft in balance.

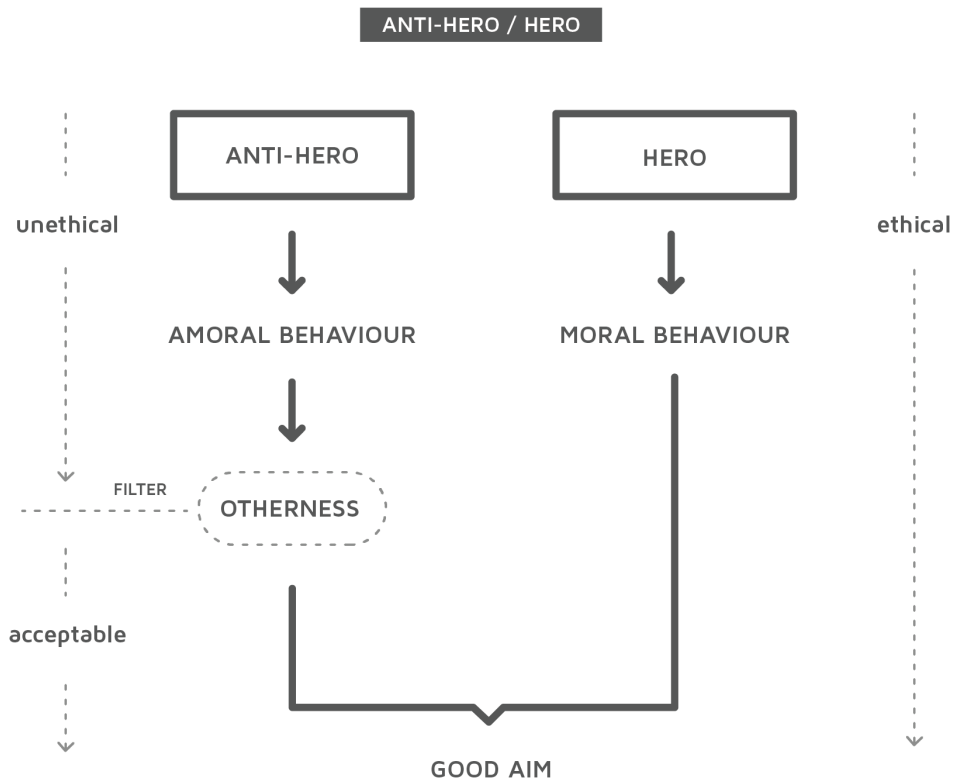


Figure 10: Anti-hero and Hero and their ethical views

This background forces him to find Dark Tower. He uses every skill and every friendship he had. For example, in 'The Gunslinger' book from the same series, Roland obliged to make a choice between following Man in Black to reach Dark Tower and saving 'Jake' who is a friend from his ka-tet (also he is more like a son to him) from falling from the edge of a dark cliff. However, Man in Black makes a statement that before reaching the tower Roland must kill him and if Roland saves the Jack, Man in Black will disappear and may not be killed. He chooses

to follow Man in Black and Jake tells ‘Go then. There are other worlds than these’⁴⁹ to Rolland:

In Dark Tower series, he and his ka-tet encounter many situations like these. Roland’s only main action is to reach The Dark Tower where every decline of the worlds can be found and can be fixed if it possible.

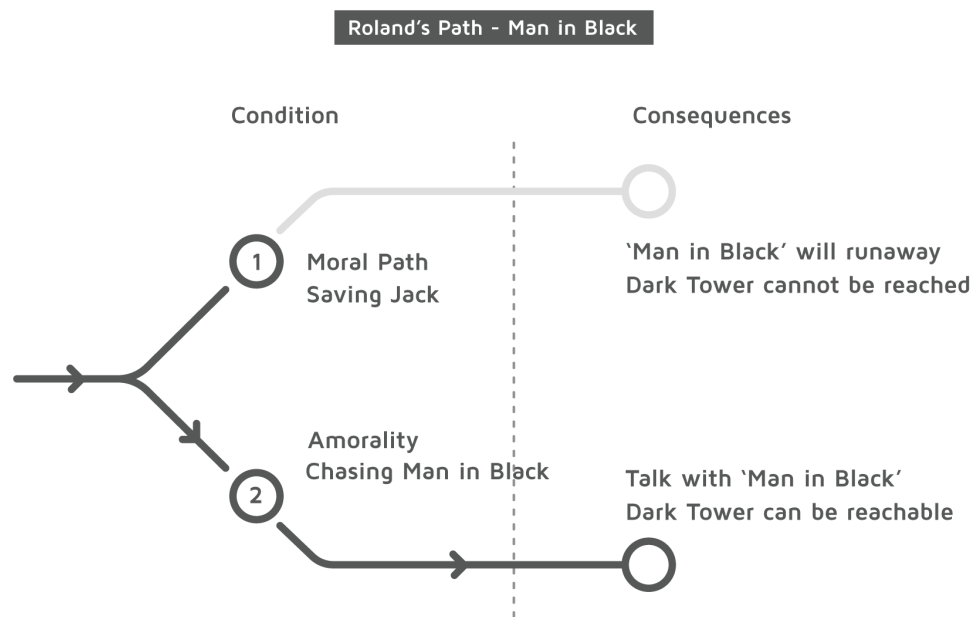


Figure 11: Roland's path

Story and experience are different, and every time new instrument has to be chosen and has to be used for right places. If the moral values had bounded Roland, The Dark Tower cannot be reached. Reaching the tower is important for gaining a chance to fix declining worlds⁵⁰. Roland’s amorality creates a chance to reach where all things bounded. Reader can understand Roland’s background life over the otherness term and make a correlation between good aim and amorality.

⁴⁹ King, S., (1982). The Dark Tower: The Gunslinger. West Kingston, R.I.: Donald M. Grant. p.

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⁵⁰ Parallel worlds that intersect in Dark Tower in Dark Tower Universe.

CHAPTER 5

ERROR AS AN ANTI-HEROIC DESIGN TOOL FOR SPACE

5.1. Error Existence

The *error* concept investigated on this thesis is a simulation which participates in the creative problem-solution process of design in order to create a solution by experiencing the inexperienced area. Simulation should have bounds with the problem dealt with and should have a positive effect on solving the problem. It's like a catalyzer that helps providing solutions that have enormous effects on problem's spine.

In respect to absolute knowledge, it shouldn't be expected to solve all problems by using error simulation. The benefit of the simulation is to give a chance to change the path or to give vaccine for clearing the problem's core. Simulation's main argument is not giving the true solution in the right time by considering the situation of versioning the path in the future. Admitting the stages of changing can be various and needed to be merged in time.

When equating the *error* with the anti-hero, there is always a chance for not separating the one who is villain and the one who is a hero correctly. Acts can be in a range that is not only black or only white. It is mostly grey accepting disk metaphor's error possibilities. In that case, errors have grey parts because they can never be thought as a black or white, they are possibly wrong or possibly right because of their inexperienced parts.

5.2. Error as a Tool

Google building in Silicon Valley has a different style of stairs. In addition to them, there is a slider, which behaves like a stairs, can be used in only the way down. Slide, which are orthogonal element, carry you from up to entrance level. It's actually an *error* if we look up its specs, because they provide one-way transportation. Because of this *error*, it provides fast transportation and enjoyment, saves energy, and different form for design. On the other hand it leaves an *error* of one-way transportation behind yet the output and knowledge set we experienced and learned is different. If designers stuck on the stair concept, they can design beautiful stairs without changing perception and gain knowledge from same domain.

Without a leap, production becomes a polishing task for every design. Providing solution to the needs improves the standards of human living by experiencing failures, however staying on the same domain cannot create leaps. For example Petroski summarized this process:

Whether a particular rock makes a good hammer depends on its size and shape and on its hardness and toughness relative to the object being hammered. Rock types that failed to accomplish desired ends became known as poor hammers and so came to be passed over. Better hammers resulted from eliminating the failures.⁵¹

Every time there is a need to do a job newly emerged, a new hammer should be designed. However it's a newer ending process because of need. Petrosky tells about new task and hammer relationship:

⁵¹ Petroski, Henry, (2006). Success Through Failure: The Paradox of Design, Princeton University Press, New Jersey, p. 2

Should all existing hammers fail to work properly for a newly developed task, than a still newer hammer might have to be developed.⁵²

Development needs a failure to take place of the old thing. Newly developed task will embody failure in the object. This is more like a polishing procedure which only removes the failure in a traditional way of seeing. Everybody asks for better hammer, however there won't be a perfect hammer no matter how hard we try. So, do we truly believe that this kind of experience provide a perfect hammer for everything and everyone? Petrosky makes a statement:

Past success, no matter how numerous and universal, are no guarantee of future performance in a new context.⁵³

If there will be new context and our designs success relies on eliminating errors, it's only an adaptation point of the new context. It exists with the experience gained from the failure to fit the new context. New context actually arises from needs and these needs have direct relation with the knowledge.

Error tool is required to change knowledge mechanisms. It provides new way of seeing for designers. Not for the new agenda of the city, object or a building but for a new knowledge. It's like what Archigram did. Sadler asserts

Archigram's transcendence of this arrangement, its demand that every design be born of inspiration, implied rebellion against an architectural profession intent upon training, in the main, competent technicians.⁵⁴

⁵² Ibid, p. 2

⁵³ Ibid, p. 3

⁵⁴ Sadler, Simon (2005) Archigram: Architecture Without Architecture, The MIT Press Cambridge, Massachusetts London England, p. 5

Inspiration achieved by Archigram almost broke the limits of the society. These works are not being built yet their concept is different from regular ones. They have a passion for changing things. Utopia may not be what cannot be built; it may be a thing, which come from another path that is inexperienced yet.

Archigram's mission has similarities between anti-hero's acts. What Archigram made was shifting design perception by searching different paths free from realities. Projects, which Archigram provides, are like utopias by being far away from realities. They use harsh movements against moral design values and act recklessly towards design authorities, schools or movements.

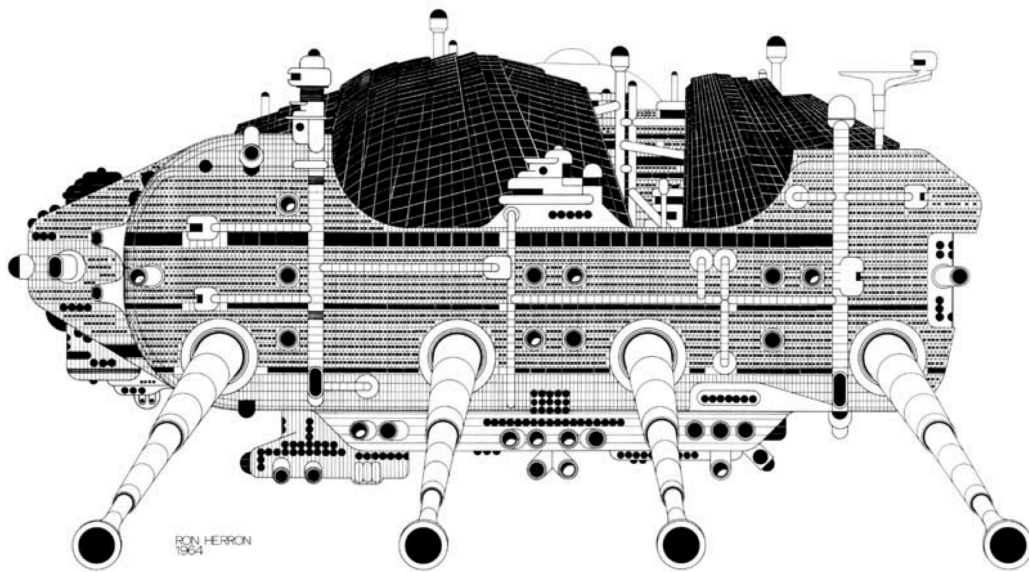


Figure 12: 'Walking City' by Ron Herron in avant-garde architecture journal Archigram (Archigram – Architecture without architecture by Simon Sadler, The MIT Press)

Pushing design out of its track and thinking outside of the box by providing solutions blended with error simulation can reveal new opportunities to inspire and gain knowledge which provides shifts. Koberg and Bagnall, in their book 'The Universal Traveller' tell about a system that encourage creativity, states

It is the quantity and quality of the side trips which separate the tourists from the well-seasoned travellers in the world of problem solving. The more exercises in the development of skills, knowledge and attitudes experienced along the way, the more meaningful will be the travelog in the end.⁵⁵

Side trips which Koberg and Bagnall tell in their books, lead travellers (designers) to outside the box and encourage finding something different from regular trips.

5.2.1. Error Simulation

When a new task is emerged, your knowledge is improved. This makes error observable to the brand new educated eye with the knowledge gained. It isn't wrong to consider some parts of an object as 'error', because eventually it will become an error because of the developed experience. If the object is made of error, then adding new errors isn't going to change its sum besides it may create different experience rather than polishing same error.

Simulating *error* in a space and controlling it by design gives opportunity of being different, rather than holding to the previous situation. It's good to stay in the case and polish the product or cities creates intimate copies of the previous ones. You can polish and improve the object until it becomes suitable for every newly emerged task again and again without reacting any end point (perfectly suitable object for every task).

When you start to initiate *error* simulation in a design solution process, it can change the shape of the question (adding an *error* clearly effects the question's status to make it less invalid for the output), and output may behave like a

⁵⁵ Koberg D., Bagnall J. (1974). The Universal Traveller: A Soft-System Guide to Creativity, Problem-solving And The Process Of Design Los Altos: William Kaufmann Inc. p. 14

solution, which is, bounded by a different question. Question may not remain the same, but the simulation process gives a different experience. The new output has pieces which are both from the past experience depending on the needs and present experience of changed perception. This situation may not easily be attached to needs required but it can be addressed to unfamiliar experience that space error concept can easily fit in.

Concept only reveals the unimagined outputs with a highly concentrated experience that can be a failure for the actual need. Ernst von Glasersfeld asserts in his book's introduction part:

Knowledge is assembled by living organisms in order to organize the actual shapeless flow of experience as far as possible into reproducible experiences with relatively reliable connections between them. This means that the 'real' world only manifests itself when our constructions fail.⁵⁶

⁵⁶ Glasersfeld, E. (1995). *Radical constructivism a way of knowing and learning*. London: Falmer Press, p. 34

Error usage and it's effects on knowledge

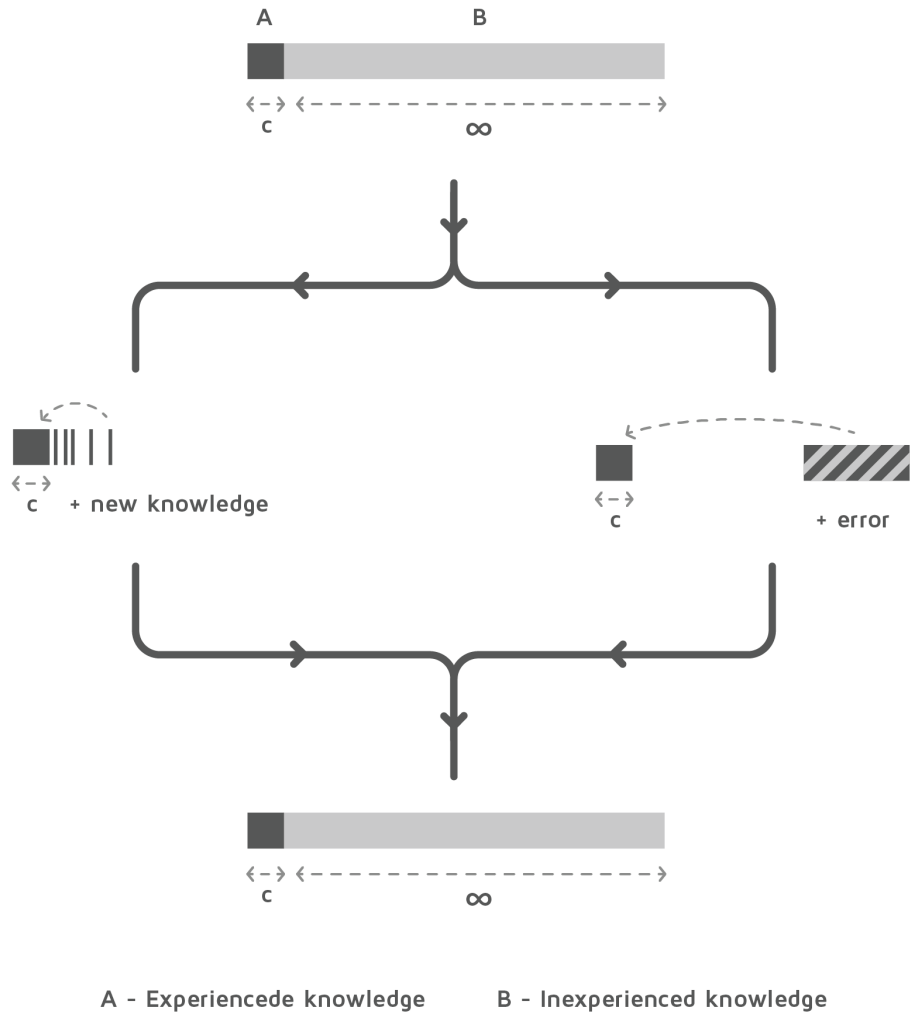


Figure 13: Adding error to knowledge and it's effect on it

Failure arises when the object is not suitable for newly emerged task. Galserfeld states

But as we can always only describe and explain the failure in those terms, which we have used to build the failed structures, a

picture of the world, which we make responsible for the failure, could never be conveyed to us.

Somewhat more metaphorical would be the following analogy: the captain of a ship has to cross straits he does not know and does not have a chart for nor navigational help such as beacon, etc. on a stormy, dark night. In the circumstances only two things are possible: Either he sails into a cliff and loses his ship and his life; in the last moment of his life he realizes that the reality of the straits was not as he imagined and his course did not correspond with the actuality of the straits. Or he reaches the open sea; then he knows only that his course was accurate but no more. He does not know whether there could have been easier, shorter crossings than the one he blindly chose. And he does not know what the real condition of the straits was.⁵⁷

So applying same technics in design by staying only in the safe paths without thinking about other possibilities is not an actual discovery. Glaserfeld's emphasis on the real condition of the straits can be the main concern, passing through and knowing a path to open sea cannot give the whole picture of it. Error simulation is not quite like failing completely but giving another questions' answers. Need can be fulfilled by passing the straits, but error simulation may give some real information about straits before another new tasks are needed.

Designing with *error* simulation can create a shock of the 'real new'. If this process creates enough shocks, new ideas can be extracted from the gained experience through improved knowledge. The shock pushes the regular thoughts out of the needs' context. It's beyond the frontier of not knowing. Failure reveals the frontier of our knowledge limits on the task. Staying within the boundaries of

⁵⁷ Ibid, p. 44

knowledge without achieving frontier of knowledge in the definite task is acceptable and also possible.

A question arises from remembering that knowledge disks and time are infinite: ‘May the new experience gained from the error simulation useless for a long time as infinite?’ Because it’s also important to gain experience in order to add knowledge to ‘relative’ knowledge set. *Error* oriented acts can provide a knowledge which is not needed in present development process. *Error* simulation should have stable point of aim not to fall back ‘infinitely’. This stable point (index) should be the ultimate aim. *Error* simulation’s path can be longer than the regular paths but it may take so much time to complete. It’s like a gamble to gain more knowledge by spending more time.

If *error* simulation is only a random selection of inexperienced experiences, it resembles with the infinite monkey theorem. Infinite monkey theorem states that a monkey hitting random keys on a keyboard/typewriter for an enough time (can be infinite), will type any text written by humans, such as a story from William Shakespeare. It can be useless in a relative context of our concept if there is no stable point like an aim. Blind mechanisms are also meaningless and unsustainable for designed product. Even if infinite monkey theorem proves that monkeys can write everything by hitting random buttons on a keyboard at an infinite time, it may not produce anything similar for today’s works. For instance a web site named The Monkey Shakespeare Simulator, which contains a Java applet, started to work on July 1, 2003 in order to simulate a large number of monkeys typing randomly. The aim is monitoring the text and comparing the results with the Shakespearean play to see how much time cyber monkeys write down entire play. It is reported that it can take 2,737,850 million billion billion billion monkey-years to write down ”RUMOUR. Open your ears” from Henry IV, Part2.⁵⁸

⁵⁸ Barrow, J. D., (2005), *Outer space: Monkey business*, Retrieved from url <http://plus.maths.org/content/outer-space-monkey-business>

Unlike infinite monkey theorem, *error* concept assumes that there is an error in every result and aims improve solutions by using *error*. Acts cannot be compared with infinite loops of randomly pressed keys. Infinite monkey theorem can only prove that every action has a true consequence in an infinite time loop. So the reference point, which is clearly aim for the problem, is like a lighthouse in an open sea for error concept. In order to reach aim, this open sea has neither pre-defined paths nor pre-defined methods to sail in the sea, dive in the sea or fly in the sky over the sea. By this way, every new experience can turn into new knowledge.

Without an index showing the aim, *error* concept can be useless. So only the relevancy of knowledge with the context dealt with can be applied for improvement of the object or space. This result-oriented improvement is different from previous method oriented design process that gives paths and equipment for designer in order to act relatively free.

5.2.2. Error in Urban Space

Unlike industrial design object/project, city reshaping/redesign can only be done at the same place produced before. It cannot be produced hundreds of time in a limited time; it has boundaries to smash when designing. Such a hard conversion of the environment causes design to be tiny and local in order not to ruin integrity of the current urban entity. Because of this, urban designers approach city problems with tiny little steps. When Kevin Lynch describing why urban design may not much resemble art because of its complexity, in his book *City Sense and City Design*, states that city forms are more resistant to design than architectural forms, for the city has a ponderous inertia. It is the accumulated product of many historic actions, and will surely undergo as much again.⁵⁹

⁵⁹ Lynch, K. (1996). *City Design: Education and Practice*. City Sense and Design. United States of America: MIT Press. (Original work published 1995) p. 499

Lynch mentions urban designer's role on changing concepts in the urban space is limited and can only be possible by following specific methods because of many actors are involved in reshaping urban area and states

Just to attain a well-known form –as axis, arcade, cluster, or greenbelt- can be a notable success. While innumerable precedents and images run through the head of any architectural designer (grand staircases, serpentine walls, tent structures, broken arcs-who could not go on and on), the repertoire of the city designer is far more limited.⁶⁰

However this comparison may not be much accurate. Reshaping urban area requires flows to design, not only static objects. If we degrade design from philosophy to polishing things (for example, designing beautiful staircases), than urban designer has another sources like urban furniture, elevated spaces, vertical gardens etc. These things can be designed more beautifully than before and serves well formed again yet this is only a surface scratching for developing concepts. In an area where cumulative problems, local policy makers, governmental policy makers, users, and citizens are involved, it's hard to change things. To protect current state in order not to ruin operative urban machine, solutions are the ones that has little changes from the previous one. Lynch asks similar question for urban design in his book:

City design is, indeed, concerned with big places, but it must deal with continuous change, a plurality of clients, conflict, and participation, yet leave room for the creative act and the aesthetic response. It should be possible to create new forms and styles and to convey meanings and feelings worthy of critical

⁶⁰ Ibid, p. 499

judgment. What possibilities might we think of, that could sustain such development, judgment, and delight? ⁶¹

Any error, may be considered bad in design, should be fixed by designer. It's a problem that should be solved by tools of pure design methods. For instance, if there is a gridiron plan is applied for city, the plan should solve almost everything about transportation, infrastructure, and buildings' positions. However this almost perfect system is monotonous and cannot create new knowledge on the city more rapidly.

For instance, in Manhattan, there is a Broadway street, which leads people to Times Square, very heart of the island. This street cuts down the gridiron system from south to north organically. It is neither perpendicular nor parallel with the other streets and avenues yet famous Times Square becomes possible with this built. This triangular or trapezoid space produces a public space for Manhattan.

⁶¹ Ibid, p. 501

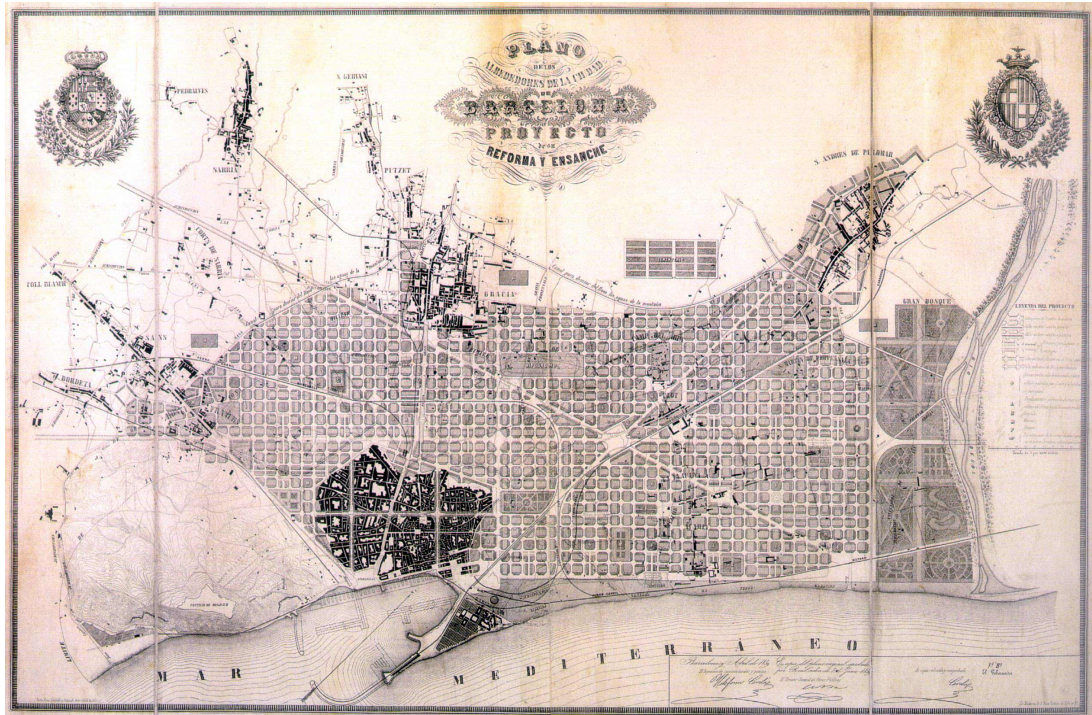


Figure 14: Cerda Plan, Barcelona by Ildefons Cerdà (taken from the url: http://www.barcelonayellow.com/images/stories/barcelona_pictures_eixample/barcelona_eixample_cerda_plan.jpg)

Also Cerda Plan of Barcelona shows us diagonal avenues which destroy this gridiron system and its monotonous effects in order to provide a fast transportation between the edges. These orthogonal avenues create triangles also, and they produce another city image and let buildings to be more polygonal. Corner buildings located in Barcelona mess gridiron system's monotone soul. Even if these avenues may be called errors for the grid system yet their solution on the ground is different and successful. These solutions of design can be considered anti-heroic acts because they break the system yet aim stays in good manners (ex. fast transportation).



Figure 15: Barcelona from air (taken from url: <http://www.diplomaciayprotocolo.com/revista/images/stories/eixample.jpg>)

It's important to understand that these kinds of *error*-oriented acts can also bring destructive effects when the aim is not clear, or exploration is limited on cracked areas. Solving whole problem with the *error* as one entity, can give designer a chance to improve space by being creative. Like in the forest example, designer needs new tools for building the new knowledge.

Considering similarities between otherness and anti-heroic acts, notion of space-*error* can be considered as amoral and a mechanism, which uses *error* as a main tool for its aim. Remarkable similarities between anti-hero and space-error make them both not wanted yet both makes good results for theirs domain. *Error* tool cannot only reveal itself in serious ordinary design procedures. It can covers whole space and let experiencing possibilities.

The *error* changes places variously and gives them options in order to be developed/designed. In a triangular intersection of the roads, buildings can also be in rectangular form, or their shapes can make angles with the roads. In both case,

these areas can produce different examples for pedestrian circulation. Sidewalk wideness can be vary because of these angles, and provide new areas to design. These angles reveal opportunities over both floor and building' form. They are not fit fully in the plot in a usual way (façades are not parallel to roads) and produces unusual opportunities.

These forms can be seen in Biga, Çanakkale with various triangle plots. Streets generally not parallel to each other like in gridiron plan and they are also discontinuous. Freeing from 90 degrees corners, straight streets starts to produce triangular plots. In Biga, corner buildings were built on these triangular plots, and narrow streets open to large space where other non-perpendicular streets connect.

In Biga, streets, which run through a space by not being perpendicular and make acute angles between each other, focus a central space. In this Biga example, focused central space is a public space (it could be evaluated as a building plot).

Street intersections with has acute angle between them, force creation of corner buildings. Low-leveled urban building pattern let buildings to be made even in small town like Biga. Aesthetic quality can vary yet these *error* simulations create experience options.



Figure 16 : Corner building, Biga - Turkey. (Günay,Baykan 2007)

Error experience isn't a one-time thing, it's more like sequence created in time. It's hard to maintain it in all extends because of the process is unique and experiencing it is requires different equipment so problems can occur and not easily satisfied users/citizens. Biga's urban pattern affects building structure heavily in their floor plans and façades. If enough attention isn't shown such a place which requires so much concentration in a limited time (generally time is limited because agents tend to equalize time consumption with the 'ordinary'

cases) because of unusual plan, many unsolved problems can reveal after the *error* is applied.



Figure 17 : Biga, Turkey, triangular street pattern

Biga's city plan shows resemblance with Paris' city street pattern by producing acute angles. This can be named as chaotic because of not being usual, and can easily be refused and tagged as inappropriate. It's hard to maintain façades direction; so many different examples can be generated such as triangular balconies and cantilevers, like in Biga. Because of streets and avenues are not perpendicular or parallel to each other (generally), many triangular building blocks were made. We can name these as opportunities because they are different than standard rectangular building block's forms. In a gridiron system, buildings easily fit in rectangular form and it helps flats to use floor space with a maximum

benefit yet in a system like in Biga, triangular plot pattern disrupts floor rectangularity which makes flat's floor spaces different than 'regular' ones in gridiron plan.

Some buildings in a rectangular plot can exempt of being regularity. They can be built with arcs or triangles whether their floor space force them or not. While these cases are generally rare, they also exam *error* in their singularity. They may changes environment surrounds them and provide new experience. On the other hand, in Biga or in Paris, urban pattern force whole areas to be designed creatively. Focusing on the whole picture, and knowing that it is a chance to be 'creative', possibilities are transformed into new forms which are not used in general.



Figure 18 : Arced facades in Biga (Günay, Baykan 2007)

Pattern of *error* in a space area raises the chance of enlarging knowledge in a less time than singular experiences. Error pattern can easily force space to be formed differently.



Figure 19 : Biga house cantilevers (Günay, Baykan 2007)

Paris has also some difficulties with the same street diffractions that change buildings positions in addition to triangular connection of roads. It's not easy to understand such conditions that streets have these small twists, yet their capability to effect building location is powerful. Such as, in Rue-Andre Mazet, street twist forces one building to stay back and one another to bring front. Space-*Error*'s capability of bending regularity can have different effects that can cover whole building form or only small façade variations.

The experiences made from *error* create solutions and tools for also other cases. Such as experiences from the triangular pattern gives urban surface collective changes which may affect whole structures around, even if they are not corner buildings.



Figure 20 : 4 Rue Andre Mazet, Paris Ile-de-France. Street has a tiny twist (Google Maps)



Figure 21 : 4 Rue Andre Mazet, Paris Ile-de-France. Tiny twist bends façade. (Google Maps)

It's significant to understand these *errors* are not stays only where they belongs. They create different solutions and they starts to spread. When you start to build

triangular cantilevers, because of the new experience, they can be used in a different part of the urban pattern.

5.3. Manhattan Grid

5.3.1. Manhattan Grid and Broadway Street

New York, also known as The Big Apple, inspires many people of being big and bold in shape and full of cultural differences. Every Manhattan photograph taken from the air reflects order of skyscrapers and big green central park. It takes many years to build this gridiron plan (Commissioner's Plan), which was accepted in 1811.



Figure 22: Commissioner's Plan ("NYC-GRID-1811" by Jleon -. Licensed under Public domain via Wikimedia Commons - <http://commons.wikimedia.org/wiki/>)

The grid system, which almost covers all Manhattan area of New York, is not one of its kinds; there are many historic cities and also American cities that use the grid pattern. Being full of skyscrapers may not be the plan's first assumption, but we now see that only gridiron plan can bear this kind of jam. Applying gridiron plan on already parceled land that consists irregularly shaped and privately owned properties was also very hard to handle and it takes many decades to implement. Redrawing property lines, enforcing to demolish already built houses, paving the roads has taken approximately 60 years to reach 155th street and today, 40% of building which were built before Commissioner's plan was replaced. Lots of criticisms has been made about Plan's grid and monotonous shape, and anti-aesthetical parts yet it can be said that it is weirdly loved by its citizens because of it is complete aesthetic with skyscrapers thanks to the street culture of Manhattan developed over these monotonous grid lines.

Some avenues or streets are wider or narrower than others and because of this, blocks' lengths and widths are different. In addition to this, Broadway Street cuts diagonally streets and avenues and creates trapezoid plots.

At first, plan didn't have central park, which was added in 1853 between 59th street and 110th street from 5th avenue to 8th avenue, while the plan had only had small separated green areas in the island. This grid is cut diagonally the streets and avenues by Broadway Street, and those cuts have made spaces for public. For instance, these public spaces are Union Square, Madison Square, Herald Square, Times Square, Columbus Circle and Verdi Square. Buildings are also affected by this layout because of the triangles between Broadway and streets, and this forces landowners to build 'buildings in triangular prism form' such as Flatiron building.

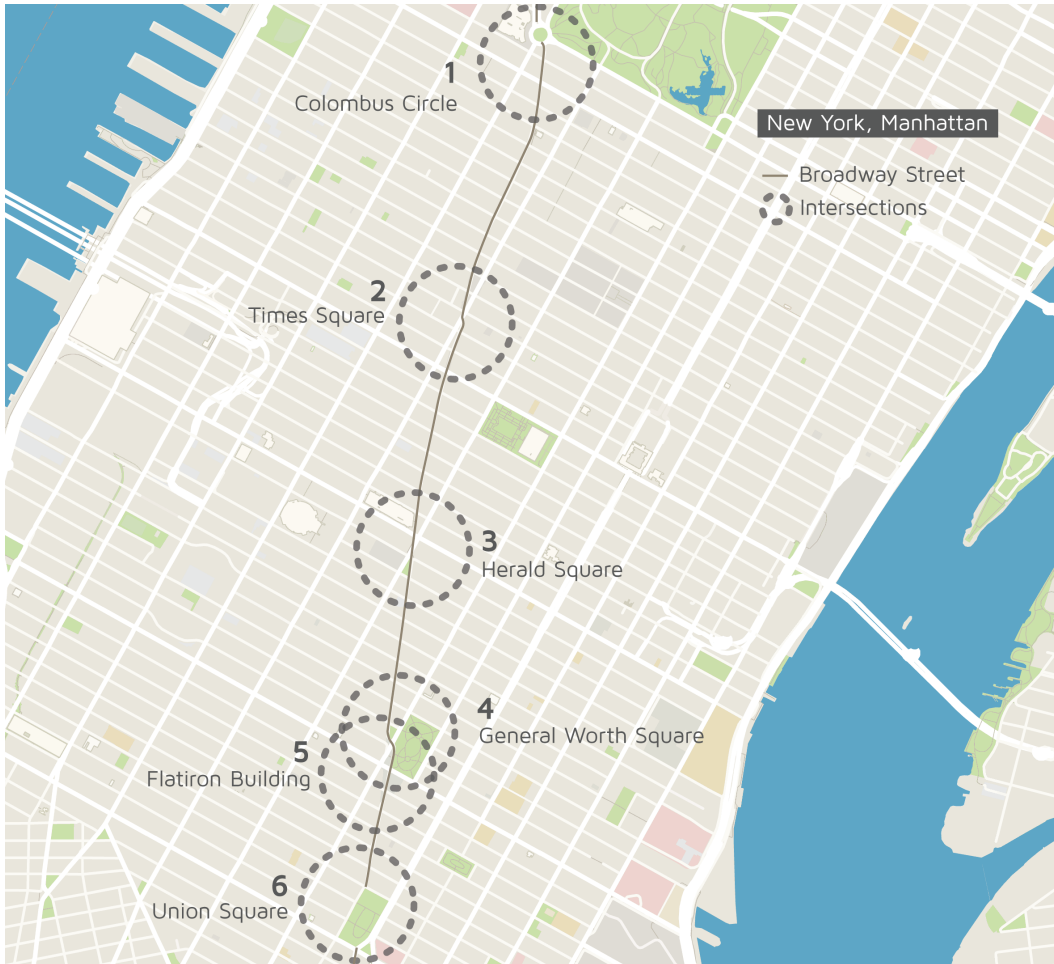


Figure 23: Broadway Street and gridiron system interaction

Broadway, which has many property rights of the landowners and has been an important road for commercial activities of the New York, is a trace from the 1800's. It's an unbreakable trace for commerce and it was added to the plan as a necessity.

Broadway, which causes a complexity in between grid plan and produces public spaces such as Times Square, is an axis that reveals errors and social values at the same time and same place.

5.3.2. The Times Square

Broadway cuts many streets and avenues and creates squares such as Columbus Circle, and Verdi Square in the north of 59th Street where central parks starts. In the south of it there are two more squares named Times Square, Madison Square, Greeley Square, Herald Square, General Worth Square and Union Square before 14th Street.

Times Square's shape basically not "a square"; it's a two-mirrored triangle between the 7th Avenue and Broadway Street. Also 44th, 45th and 46th Streets cross these two triangles. The area and roads are not undergrounded or pedestrianized and both cars and pedestrians use it at the same street level.

Times Square, which is located between Fifty-third Street in the south and Forty-eight Street in the north, from Eight Avenue to Sixth Avenue, is a node point for theaters and national news. Yorkers (both citizens or tourists) can entertain themselves at this place where art, life, and commerce collide in street or underground passages, penthouses, theatres, and restaurants. There are more than seventy theatres in and a few blocks near to Times Square where hundreds of shows are produced. In addition to entertainment, Times Square is a home for news producers and programs such as ABC Reuters, Viacom and of course New York Times which gives its name to the square.

It became corrupted in post-World War II because of prostitution and sex theaters yet it has been restored in the past decades thanks to redevelopment of Times Square that began in the mid 1970's, crowds have returned to the square with their energy and creativity again. It's still an international icon for reflecting desires, changing, creativity, commerce and people.

5.3.3. Contrasts Between Broadway Street and Gridiron System

Studying an urban area in order to reproduce it by using same methods can only serve similar knowledge and similar structures. Methods create accurate parts that are only defined inside of them relatively. In order to provide harmony in design, rules should be regulated and applied by using pre-defined methods.

However sometimes, similarly to Manhattan-Broadway example, two powerful concepts, organic path and gridiron system, can contradict at the same area. This creates a 'crack' where concepts cannot find a proper way to fill separately; they necessitate other options to be made. These interfaces are the gates to the inexperienced area where you cannot control it with standard experiences or pre-defined rules.

Both old Broadway Street and new gridiron system can be thought as an error simulation for each other and provides a different solution. Gridiron system doesn't have an organic structure to be articulated to Broadway while organic shape of Broadway St. compels grid system's vital infrastructure, line links and shape of the buildings. This contradiction stems from powers of each other's history, policy mechanisms and social backgrounds, and drives urban designers to take unusual inexperienced actions.

Contrast of Broadway and greatest grid makes new variations possible for the street layout so it requires new statements about usage, transportation, infrastructure and aesthetic. For instance, transportation has lots of problem on the crossroads. In general, grid system offers diagonal crossings that allow both vehicular and pedestrian movements into a regular type yet intersections of Broadway Street is organic and they cause traffic jam. Manhattan, today, has a solution in which Broadway runs through one-way to south. This phenomenon produces triangular public spaces as squares that were not projected in 1811.

Buildings are also affected from these layout contrast and their shapes are generally different from other corner buildings located on diagonal intersections. Flatiron Building can be the best example for being a triangular prism in such an intersection and represents the area by its name as a node point. It creates a visually attracted point on Broadway with a corner building façade.

Broadway cuts plots into small triangular parts where avenue intersection is seen. For instance, remaining plot parts between Broadway and 5th Avenue are converted into public spaces. These areas have some street furniture such as trees, umbrellas, chairs and tables. People drink their coffees or read newspapers/books at these public spaces. It converts the monotonous factors of grid system to a crack where people can breathe. There can be varying solutions for how to use Broadway Street here, yet alternatives for citizens' everyday usage have a high priority than vehicular transportation because there aren't enough alternatives in other rectangular plots of the grid.

Besides, these cracks have a flexibility setting in them so they can be converted into anything else quickly which gives a chance for policy makers a power of changing urban land quickly to solve problems that may occur in the future. The flexibility of time in changing square's function from one to another can be applied from day to night. This is an enormously fast act when comparing changing usage of a building into another. Firstly buildings have private owners and have to be expropriated. Secondly, demolishing or restoring a building requires much more money and time. Broadway provides these sequenced public spaces and they can be connected alongside the intersections where triangles can be created more easily than buildings. There are some privately owned buildings, their shapes were formed to create public spaces, such as in Rockefeller Center in 5th avenue entrance. You can walk through ice rink alongside with small pools. It is open for everyone and it has a public space in a building's form which is seen rare. These two examples both have *error* function in them, one is publicly observed in a public land between the property lines and one is privately created

to public. When you create *error* you can have a new ability to shape area with different eyes.

Intersections are between avenues and Broadway streets, can cause triangular shapes in the land. Building a skyscraper in such an area is hard to cope with. Regular rectangular forms should be abolished in such an area in order to use more floor space. For instance, Flatiron building has an acute angle between 5th Avenue and Broadway Streets. It uses maximum floor space however it creates narrowing rooms inside. The tension between these two makes its shape unique and labels it as a landmark. Triangular area leads architect to build a triangular façade and narrowing rooms inside where property owners or residents should solve how to design the narrowing interior to an acute angle.

Another crossing of the Broadway that creates the Times Square, which also has a corner buildings at north and south of the square, building's facades are full of screens and advertisements about shows, musicals, films etc. Avenue intersections of Broadway can produce same triangles but their usage can vary. At one part it creates a beautiful triangular façade as a node, and another part creates Times Square full of screens and advertisements yet as a node point for Big Apple both residents, workers, students belong to there and tourists visiting New York. Architecture and aesthetic are boiling at the same area with large screen advertisements. Times Square is a crowded place both night and day, where many disciplines involve in order building it. This can create both opportunities and chaotic rules to be applied and to be regulated.



Figure 24: Different disciplines in the same place

Kristine F. Miller, in her book *Design on the Public: The Private Lives of New York's Public Spaces*, tells us how public spaces are made in New York and how other participants involve in the process. Miller asks a question about Times Square's complexity:

At Times Square, urban design, architecture, landscape architecture, and graphic design were all employed. The questions raised by The Times Square case are complex. How do laws governing the taking of private property relate to public spaces? Do question of across and use relate to both small-scale

public spaces and across entire portions of a city? How do varied design practices generate public spaces and public bodies? How do we compare the rhetoric of law with the rhetoric of design? ⁶²

In order to understand its complexity, dissimilarities between other public squares can help us. Times Square's pedestrian level circulation is allowed on sidewalks because motor vehicle transportation isn't cut out in the Square. Motor vehicle and pedestrian flow both work in the same public space. People just walk because there are only sidewalks and some narrow spaces, police barricades are everywhere in order to regulate traffic, and majority of buildings are covered with huge screens and advertisements about shows or products. This questionable square, where architecture with graphics and pedestrian flow bounded on sidewalks, has its own behavior to any intervention.

⁶² Miller, K. F. (2007). *Condemning the Public in the New Times Square. Designs on the public the private lives of New York's public spaces.* Minneapolis: University of Minnesota Press. p. 46

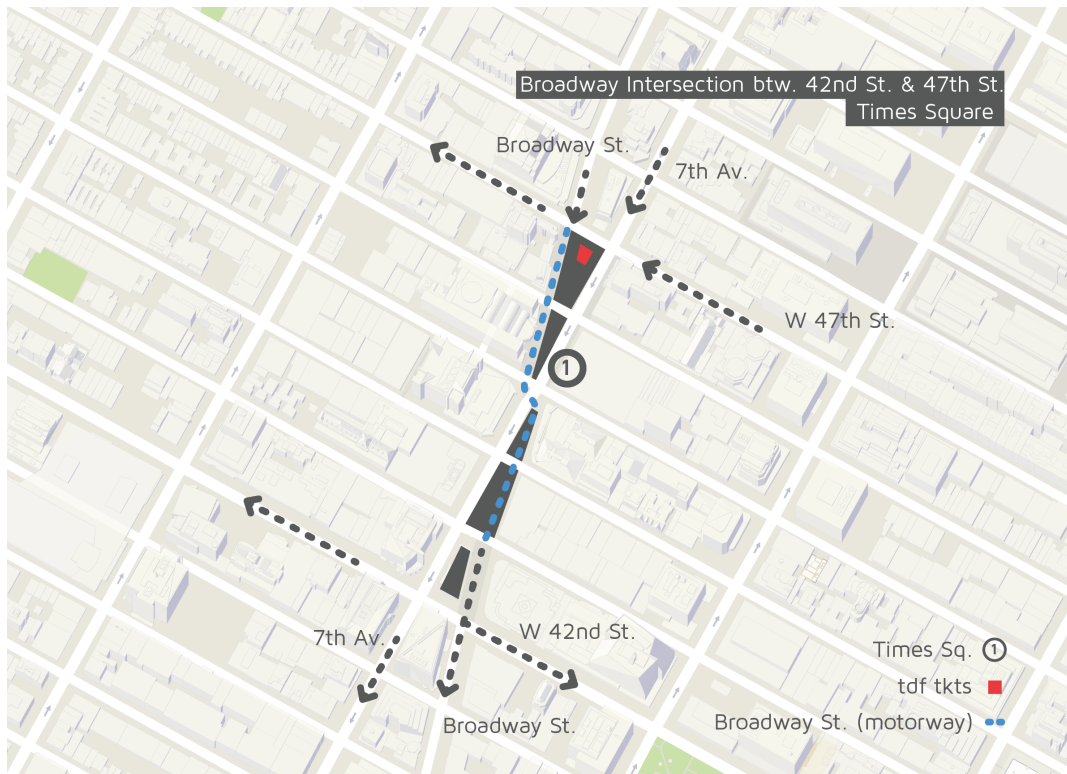


Figure 25: Interaction - Times Square

Times square is a crack between 47th and 43rd streets and works together with pedestrian and motor vehicle circulation at the same time. In figure 25, we observe Broadway Street motor vehicle transportation, which is the blue dotted line, isn't cut off, besides, people are allowed only walking on the sidewalks and the black polygonal areas that are seen in this figure. Streets between 47th and 43rd streets doesn't run underground or cut off, and in addition to this, Broadway Street also has a twist between these divided pedestrian areas. (Black areas in figure 25 are used as public spaces between pedestrian circulations. In figure 26, city furniture, such as benches, umbrellas, chairs and tables can be seen. Buildings, which give edge to these areas, are covered with advertisements of the shows.)

Times Square is a version of a public square which emerges between intersections of streets and 7th avenue where it draws lots of vehicular and pedestrian circulations. In between them, it is hard to feel a 'European' public square sense such as Trafalgar Square in London or Place De La Concorde in Paris.



Figure 26: Times Square building's facade advertisements and city furniture

This narrow square gets narrower with an installation which serves as a ticket office for Theatre Development Fund. Office's roof is shaped as stairs (Figure 27) in order to observe Times Square.



Figure 27: TDF Stairs / Times Square

Error cannot represent the perfection but it mines the experience from the part it is applied whether it can be aimed or not. Broadway intersections between avenues and streets present possibilities to do for urban environment of Manhattan gridiron system. In Manhattan, these cracks generally create public spaces that maybe

because of the scarcity of them in the island or the shapes that cannot easily fit to build a building.

Broadway Street intersections with avenues and streets, give causes to build different landscapes in Manhattan. They can be successful or not but provide new frames to both monotonous gridiron space and organic Broadway Street. Broadway Street has also a twist near the Herald Square and creates cracks. It also cuts the 33th street in order to run through south.

Between streets and buildings, smaller public spaces emerged by converting the motor vehicle road transportation into pedestrian circulation (Figure 28 and 29).

New York is not a silent and calm city; it has a speed and crowded circulation everywhere and every time. This areas become much more important because of the scarcity of public spaces nearby.



Figure 28: Intersection - Herald Square



Figure 29 : Herald Square (from maps.google.com)

Relaxation in public squares is not a case in cracked squares of Manhattan. They are refreshing areas for crowds who meet, wait, observe and decide instantly. Cracks push people to stay together, and removes the spaces between people. You don't need to be introduced in order to chitchat because this situation forms another culture in these public spaces.

Leaving the social aspects of these cracked surfaces provide, contrast between Broadway Street and gridiron plan create strange shapes for squares and powerful forms for buildings (Figure 30 and 31). Aesthetical dimension tends to change in error driven surfaces of New York, and they provide opportunities to experience more. They have potential to become more than we can foresee yet they can also become a standard or insufficient surfaces because of not enough consideration of new equipment and senses. For example, Part of the General Worth Square isn't seemed as experienced enough (Figure 31). It's like an ordinary sidewalk with a strange shape because of the twist of Broadway Street. On the contrary, strongly shaped corner building was made, Flatiron Building, has 3 facades only. In other words, Broadway twists and property ownership's passion to fill floor space cause a triangular prism located between 22nd, 23rd, Broadway streets and 5th avenue (Figure 30 and 31).



Figure 30: General worth square



Figure 31: General Worth Square (from maps.google.com)

Admitting that finding solutions for controversial forms are not easy because their effects on urban surface can cover whole area and force designers to provide

unique local solutions. Unique solutions require time and new equipment which are not used before. With this aspect, it separates itself from other problem-solution processes.

Cracked surfaces of Manhattan, gives room to creativity weather solutions are effective and useful or not. We can see extraordinary solutions like Times Square and Flatiron Building or ordinary solutions like part of General Worth Square still they possess quick reaction to any new solution/decision will be made because of experimental potential of them.

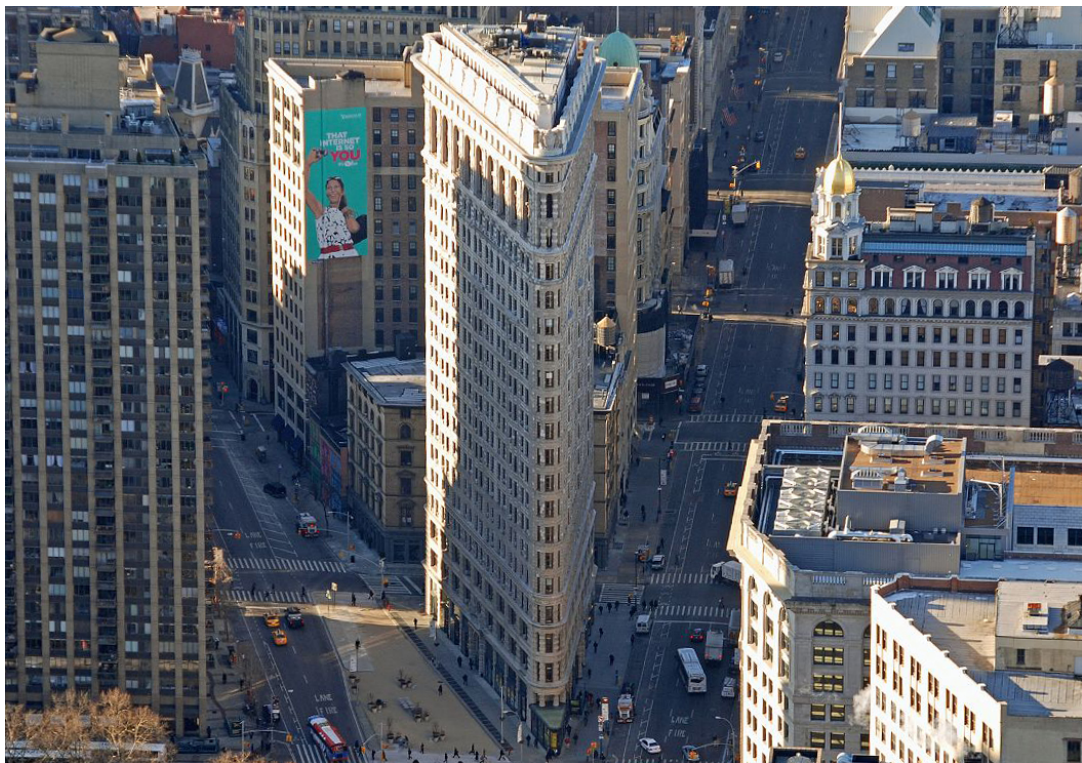


Figure 32: Flatiron Building (from <http://www.shedexpedition.com/wp-content/uploads/2013/07/New-York-City-Flatiron-Building-View-From-Empire-State-Building.jpg>)

CHAPTER 6

CONCLUSION

6.1.Overview

The study aimed to develop a different perspective on how to design things⁶³ by focusing on knowledge crawling by experiencing things in order to express new possibilities. For this purpose, by exploring the experimental side of design while not being afraid of failure and using error as a tool and in order not to be nervous about the *error* usage, first arguments were supported by covering the terms “Anti-hero”, “Amorality”, and “Otherness” after discussing knowledge over Kant’s sublime hence being clear that absoluteness⁶⁴ is far away what is being designed.

Amorality and otherness are the key themes for the thesis, these terms are illustrated over action figures like Roland⁶⁵ in Dark Tower series of Stephen King, Batman⁶⁶ in the movie trilogy of Christopher Nolan in order to give spirit to the space-error term discussed in the last chapter and explained over the words of Hans-Georg Moeller who creates “*The Moral Fool*” who is an amoral character on the contrary to societies’ “ethics”. It’s significant to associate the anti-hero

⁶³ Things refer to objects which are not finished products like all other designed items yet mainly focuses on the “space” concept which can be followed on the chapter “*Greatest Grid*”

⁶⁴ Absoluteness refers to Plato’s absolute knowledge and Kant’s sublime.

⁶⁵ Roland is a character which can be considered as an anti-hero because of his amoral behaviours in the path to the Dark Tower in order to solve its mystery and maybe to find a solution for the worlds’ corruption (there are separate worlds at the same time in the Dark Tower universe)

⁶⁶ The Batman (from DC Comics) discussed in this thesis isn’t the ones which are created previously the Batman trilogy by Christopher Nolan. It covers only the character that was created in it as an anti-hero (because in older ones Batman can be considered as “super” rather than “anti”).

concept with the *space-error*, hence characteristics of both can be followed over among them and a connection can be built between background findings on “ethics”, which was discussed in an inquiry questioning each concept’s aims and purposes and need of amorality in such cases.

In order to keep these terms feet on the ground, thesis pieces these terms together with error of things by mainly using ideas of contemporary art⁶⁷ and discusses their potential revealing another option for design process’ arrangement by letting *errors* to be happen. The thesis can also be accepted as criticism on modern design methodology for converting inspirational side of design into non-designer field for the sake of directing⁶⁸ different agents’ purposes into one structure on the contrary of being creative without spending so much time to tie and providing solutions between non-designers’ problems.

In the chapter *Greatest Grid*, the contrast of Manhattan grid and Broadway Street are discussed for being two anomalous concepts while comparing inconsistency of organic path to perpendicular lines and how they shape the urban ground where they intersect imperfectly. These intersections create public spaces which are studied over the failure side of productivity and inspiration which later become nodes for citizens and as playground for different disciplines. In these intersections, *error*’s benefits of creating different landscapes are studied and told whether it has good or bad sides.

6.2. Findings and Conclusion

Providing the best solution with the tools and agents in the environment, design can be seen as an ethical entity, so any attempt that causes morally unallowable consequences is unethical rather than admitting the failure is a best way to

⁶⁷ Mainly avant-garde yet it covers the ideas which encourage failure in the experimentation process.

⁶⁸ Directing can be regarded as utopia because designer generally have no considerable power on different agents

improve things. In that case, design methods, which behaves like a protector of good act and a good aim, calibrates the best option for the problem without changing the current knowledge domain. Process of design methods, are more alike with the heroes by resembling attitudes. Experience gaining from other domains becomes inevitable because of realizing both ethics and agents play a trickster role for design methods. This trickster forces designer to stay in same domain by threatening s/he with the consuming time, resources and money. In design methods, designers are expected to be a connector between agents' needs and provide solutions which consume less time, resources and money rather than being creative.

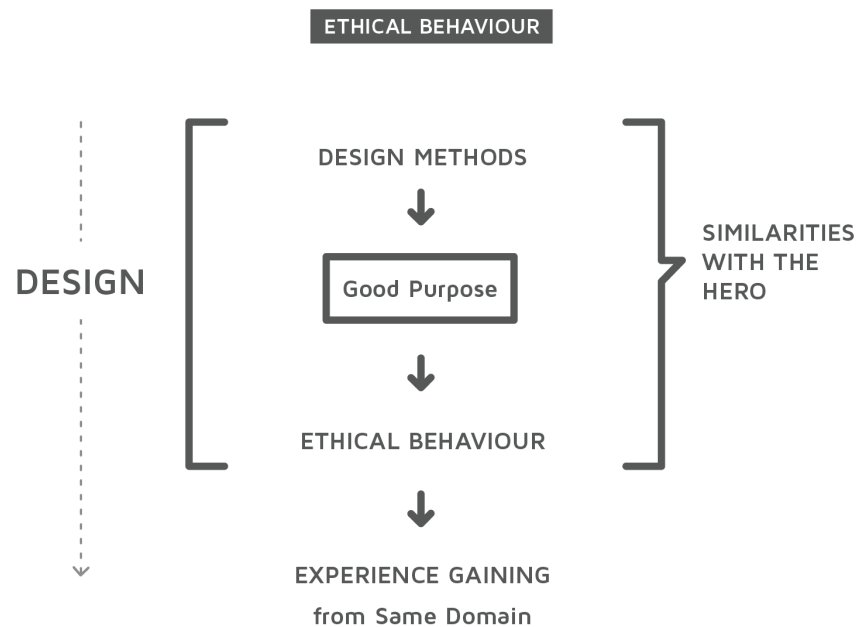


Figure 33: Ethical behaviour in design

This thesis develops an alternative way for design process in order to give designer a chance to stay creative while solution process of the design problem by implementing *error* to experience inexperienced domains. Because of that, *error* is not suitable for 'ethics', thesis researches otherness concept and ensamples anti-hero in order to reveal resemblances.

Otherness plays a filter role for the *error*-process and regulates ethical perception of error-oriented design while researching similarities with the anti-heroic acts. By removing the barriers that trickster caused, solutions, which involves *error* simulation, can provide a shift to reach other domains for gaining knowledge.

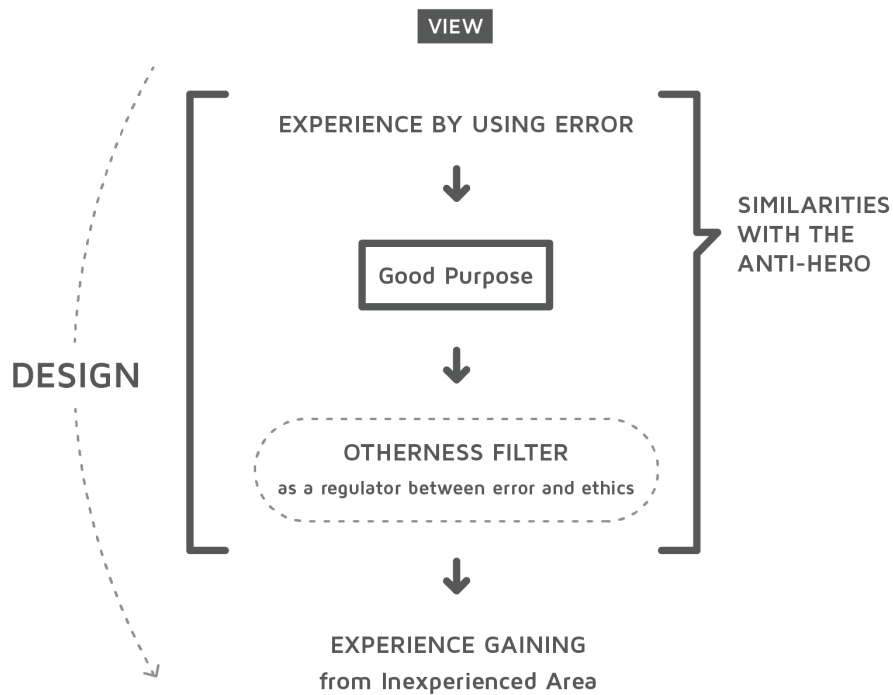


Figure 34: View of design by using error

The study shows that, *error* is an ultimate consequence for any act that have been made yet it can be considered as a tool for design process to cope with all agents that permits inspiration only through their methods for acquiring things. In Broadway case, *error*'s existence made public spaces possible to emerge in between motor vehicle roads and plots that are different in shape and usage of their facades are controlled by different disciplines (architecture, graphic design

etc.). Contrast of different patterns on the grid system forces plots to be cut by Broadway Street and turn them into cracks⁶⁹ where public spaces are created.

The Manhattan grids and Broadway Street contrast is a remarkable situation for both observing the public spaces' development (the cautions taken and decisions made in the planning process) and usage on the intersections where traffic flow is getting complicated, and discussing the potential inspiration taken over these cracks to provide clear example for registering *error* with the space.

While property upgrading process of New York's Commissioner's Plan uses every part of the plots to develop private property and give less area for public. Planning between in a highly privatizes buildings, in an era that NYC Department of City Planning convert the building's⁷⁰ entrance floor from commercial activity to "public space" due to absence of public spaces, these cracks can provide what city needs in decades by their experimental behaviors' potential of being convertible.

Space-*error*'s characteristic of error driven design continuum which encourages inspiration by breaking its ties from the case's future dependence of other fields (ex. engineering, economics) and force experimentalism in order to gain inexperienced knowledge rather than repeating what has been done to stay stable in the context, is clearly seen in the intersection of Broadway Street with the streets and avenues of gridiron system. These areas can either be accepted as good or bad, aesthetic or unaesthetic yet they can be experimental for giving inspiration by removing boundaries.

From this study, it can also be said that opposing two major existences can cause space-*error*. In this respect, one of the contrasted items can be seen as *error* tool for failure so that paradox and experimentation is encouraged in spaces rather than

⁶⁹ Cracks term indicates areas which is like limbo places between grid and Broadway Street, intersected plots.

⁷⁰ West side of Madison Avenue between East 55th and 56th Streets

design's less-inspirational usage on modern design methods which tries to justify the equilibrium between computer-like models for designer (*designer as computer*⁷¹) and inspirational entity who is seen like a magician (*designer as magician*⁷²) for the sake of getting things done.

⁷¹ Term can be found on: Jones, J. C. (1992). Design methods (2nd ed.,). New York: Van Nostrand Reinhold. p. 50

⁷² Term can be found on: Jones, J. C. (1992). Design methods (2nd ed.,). New York: Van Nostrand Reinhold. p. 46

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