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공학석사 학위논문

A Study on the 'Incompleteness' of  
Louis I. Kahn's 'Levy Memorial Playground'

루이스 칸의 '레비기념놀이터'에 나타난  
'불완전성'에 관한 연구

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## **Abstract**

# **A Study on the 'Incompleteness' of Louis I. Kahn's 'Levy Memorial Playground'**

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Master Dissertation

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The purpose of this study is to examine Kahn's concept of 'Incompleteness' in children's play spaces by analyzing 'Levy Memorial Playground', designed by Isamu Noguchi and Louis I. Kahn in NYC, 1961-66. Although the playground was never conceived, the design itself was peculiar for its aim to accommodate and contain in one space all the different purposes that the individuals seek for. By adding the unpredictable character of children to the structural space, the need of availability became obvious, since for Kahn, rather than the original purpose of the space, searching for new ways of usage was more interesting. His architectural structures give individuals the choice. The extension of the selective territoriality that is offered through Kahn's designs, is the notion of availability.

The Levy Memorial Playground is open to the vast range of users. Moreover, the composing elements were scattered in a way to organize void, and help the children play, interact, and move to the next play element without any boundaries. This fluidity of connectivity in-between the play elements and the site itself makes possible much more varied activities. The Play in Levy Playground is not pre-determined and planned in advance, it is created in the instant, spontaneously, and gives rise to a constant voluntary expression of freedom. Kahn defined this as the concept of Incompleteness.

The individual's flexible character is at the basis of the concept of Incompleteness, demonstrated in Kahn's Levy Playground, and it can be extended to the contemporary society. Therefore, the program that the contemporary architect designs, is complex, interdependent and open. The operative landscape allows the architect's program to be realized, and thus, the infra-structures built within the site become part of the whole landscape.

**Keywords : Louis I. Kahn, Levy Memorial Playground, Incompleteness, Availability, Indeterminacy, Landscape**  
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## **Chapter 1.**

### **Introduction**

#### **1.1. Purpose of the study**

#### **1.2. Object of study**

#### **1.3. Flow of study**

#### **1.1. Purpose of the study**

The purpose of this study is to examine Kahn's concept of 'Incompleteness' in children's play spaces by analyzing 'Levy Memorial Playground', designed by Isamu Noguchi and Kahn in NYC, 1961-66. To define Incompleteness, the evolution of the five designed versions was emphasized; the design was based on the fact that children do not play in a predetermined or premeditated way, but with spontaneity and complexity. The aim was to create a space that can satisfy all needs, including the indecisive and indefinite ones, and therefore making the space 'available'.

In order to understand the notion of Incompleteness, and furthermore, to reach to the understanding of the concept of Indeterminacy, it is first essential to analyze the city in which we evolve, the metapolis. Connectivity within the city creates a flow and makes boundaries disappear. By examining the patterns according to which the individual evolves in the metapolis, it appears that the human being finds the origin of his behavior in the factuality that mankind can be defined as Homo Ludens, the Playing Man. Hence, the essence of Man the Player is to play, the space in which the play takes place, is the playground.

By analyzing the behavioral perspective of Homo Ludens, the playground occurs to be a scales-down city, a down-sized operative landscape.

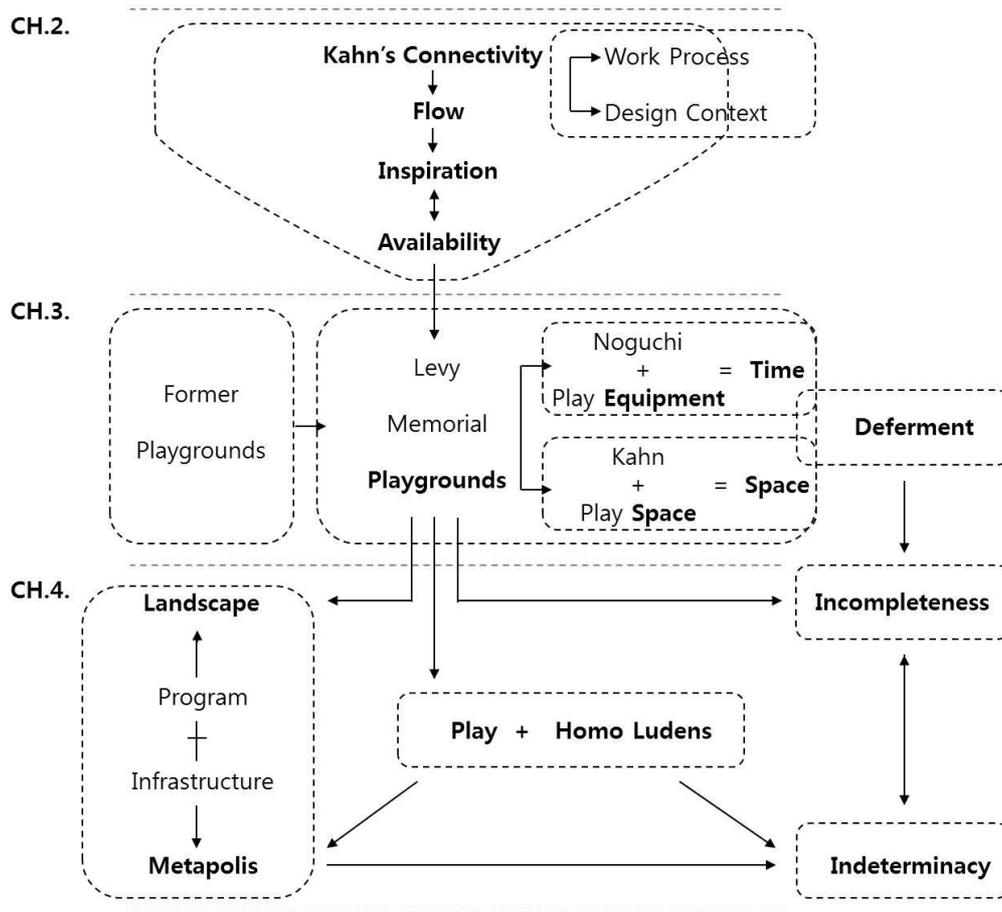
Based on the human behavioral patterns and the intersection of activities, architects reach toward a programmed landscape that is complex, interdependent and open. A surface, a land, is what supports the program. In the contemporary architecture, the landscape is not only the site itself, but also the infra-structures it contains within it, and it is why the landscape is as indetermined as the individual is. Structures nowadays are more and more indetermined, since the society is more than ever indetermined, incomplete.

## **1.2. Object of study**

The object of this study is the 'Levy Memorial Playground', a design project that was meant to be built in New York City in 1961-1966, adjacent to Hudson River.

It was commissioned to Isamu Noguchi by Hass in 1960 and with Noguchi's recommendation; Louis Kahn joined the project in 1961. Five versions were made during the five years of work. The first version started as an idealization of most of Noguchi's ideas, but as the work went on, the versions were to be more and more influenced by Kahn's beliefs. By the end of the project, it eventually led to a division of work: Noguchi designing the Play Elements distributed throughout the entire grounds, while Kahn designing the rest. Through the evolvement of the five versions of the playground, Kahn transformed this playground from a site with dispatched play elements, into a landscape.

### 1.3. Flow of study



## **Chapter 2.**

### **Kahn's 'Architecture of Connection' as the Availability of Space**

#### **2.1. The concept of connectivity**

2.1.1. Charcoal sketching: Kahn's way of expressing connectivity

2.1.2. Connectivity expressed through drawing methods and schemes

2.1.3. Connectivity in the design itself

#### **2.2. Inspiration through the architecture of connection**

2.2.1. Inspiring with connectivity

2.2.2. Inspiration in Play

#### **2.3. The notion of availability**

This study is an analysis of Kahn's commentary about the playground which he has designed with Noguchi.

The term 'children', is a generalized term defining the grouping of a very wide age spectrum, from the very young infants to the adolescence, embracing every and each year of the child's development. The importance and difference of one year in childhood is immense compared to adulthood, consequently it is needed to take into account the large diversity of age of the individuals for whom the playground is designed. The descriptive term of 'playing' includes all the actions, the deeds and exploits of a child, as well as the instructive and educational experiences the child accumulates in the process of forging himself as

he steps closer to adulthood. Kahn explains that children have a very spontaneous way of playing, and that spontaneity and creativity is in their nature. Therefore, a playground should be designed to be Incomplete for play. The 'play-ground', the area in which the 'play' takes place should be built to embody and comprise all the needs of each and every individual and also all the possible activities that can be found. Those vast but specific characteristics should be all made possible and accessible in a playground.

In order to analyse how such a user-based architectural space was built, it is firstly interesting to begin with the study of Kahn's previous designs, especially since the Levy Memorial Playground is the only large scale play space project that he has ever designed during his entire life. Moreover, studying Kahn's words and works will lead to understanding his set of beliefs regarding the relationship between men and the architectural space in general, and help the comprehension of his design methods. Additionally, his theory of Incompleteness will be emphasized through his extreme design project, which has never been actually edified, and only achieved on drawings and models merely several years before his sudden death. And lastly, it is substantial to underline the massive influence that Kahn still has on the contemporary architecture.

## **2.1. The concept of connectivity**

According to Kahn, the relationship between men and the architectural space is rather more a notion of choice. A choice that the individual makes about how to evolve and move within the space, fully operate and make use of the given functions. Whereas an architectural space basically had to provide defined answers for the way of usage of that specific space, and in a way decide the purpose of it which did not always correspond to the willing or the essence of the human nature, Kahn was already ahead on his contemporaries. He did not design a

space that was meant for one unique purpose, and instead left the user the possibility to select among several different ways of utilizing that space by providing all the possible details that would allow the individual to choose. It is about Inspiration. Kahn directed the free will of the individual by inspiring and stimulating the wide range of all possible potentials a space had, and even thought about the unknown, the un-thought, un-expected factor.

Each individual has a unique, personal character and taste, and a very specific disposition and propensity in the way of behaving and acting, it is therefore considered as something un-pre-defined from the designer's point of view. Kahn's efforts were concentrated of finding a design that would be capable of embracing all these diverse characteristics by offering a multiplicity of choices, since each and every individual has a specific purpose and needs in the usage of an architectural space, or any prior knowledge or wish is at all absent, in which case, the space itself will probably inspire and guide the user. Suggesting different and diverse paths from which the user of the space can choose and juxtapose a wider number of activities, is offering 'connections'. Kahn designed the architectural space in a way to connect spaces, with the intention to bring out new inspirations and add different purposes to the same space, by positioning himself at the place of the user. Kahn named it 'the architecture of connection'.

Some architectural spaces are designed from the beginning to serve as a connecting channel, connecting is their original and only purpose. Corridors allow the space-user to move and evolve in the space, and to swift from one space to another; entrance halls are large spaces that concentrate and gather the incoming users, and then dispatch them to several divided spaces of other purposes. These examples of pre-defined spaces are only partially using the given architectural space, since from its creation, it was only designed for one single purpose, without taking into consideration all the diversity of usage that space can possibly offer.

Connection does not only occur between the different parts of one single space, or between different spaces, but occurs also between the users, the individuals who gather in that space for a certain purpose. The space also allows the individuals to create a spontaneous or accidental connection, a personal encountering in a space that allows those circumstances. For instance, a seminar room, a dining room, or a bar, are all spaces in which the individuals are free and are capable of making connections with other individuals.

Connectivity is about connecting spaces, connecting spaces to their users, and also connecting the individuals in-between them.

Kahn pushes even further this connectivity notion even in his working process. His designing process was indeed very complex; while he was searching for the design and making the architectural drawings for the construction, in parallel and simultaneously, he always created free hand-sketches, schemes, perspectives and detailed drawings of the project, as each version was gradually developed and produced. That way, without definitively finalizing the project at once, he was always open to other different, new possibilities and options all along the way, and was always in a constant search of progress and more innovative design methods for spatial organization. Leaving the project open to modifications or changing the entire design, even after the beginning of the construction, was Kahn's own way of searching for the right spatial connectivity and translating it into the real and concrete architectural space.

Most of Kahn's sketches are drawn on thin yellow tracing paper with charcoal, and it is easily erasable and modifiable with a mere touch, a gesture. The drawing techniques of charcoal allow to create an instant and direct channel right from his raw thoughts straight to the paper through his fingers.

The choice of the material used in his sketches is also an important

element of choice in his work, since this precise technique allows him to create multiple connections and to attempt the totality of possibilities that crosses his mind while designing a space.

### **2.1.1. Charcoal sketching: Kahn's way of expressing connectivity**

For Kahn, his charcoal sketches are the first step in giving a concrete shape to his inner-thoughts and accords importance to this process, as it is a matter of 'extracting feelings' onto the paper, transferred from the mind through the fingers. Feelings and emotions that are most personal and very specific and unique to each and every individual, especially since expression is freedom itself. And charcoal sketching is Kahn's mean of expressing his own feelings, a technique that gives life to his thoughts and ideas, rendering them 'alive' and real with no physical limits:

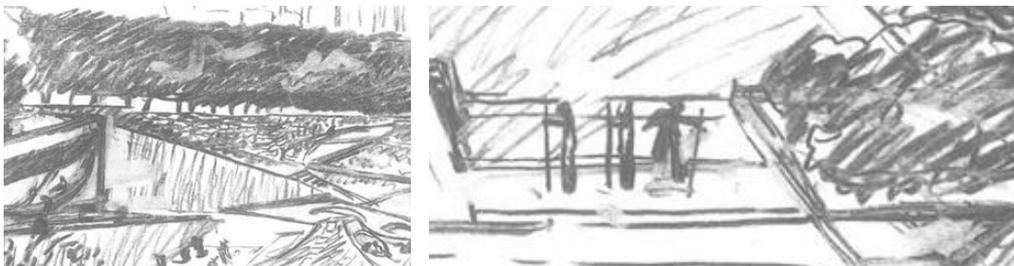
"I try in all my sketching not to be entirely subservient to my subject, but I have respect for it, and regard it as something tangible - alive - from which to extract my feelings. I have learned to regard it as no physical impossibility to move mountains and trees, or change cupolas and towers to suit my taste."<sup>1)</sup>

Many of Kahn's schemes are charcoal drawings on a thin yellow sketching paper, and he uses those materials and drawing techniques in order to preserve the instant of his thoughts. Charcoal is usually used in drawings because of its manageable and easy character - the burnt wood can be gently rubbed with the fingertip and the charcoal smears heterogeneously on the surface of the paper, creating an uneven texture that can be smooth or rough. The charcoal smoothly draws strong black lines as the burnt material smears into the canvas and is spread over according to the drawer's intentions and guidance. In order to emphasis,

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1) Richard Saul Wurman (ed.), "What Will Be Has Always Been: The Words Of Louis I. Kahn", Rizzoli, 1986, p.23

a fully dense and intense line or body will be drawn, whereas to express the contrary, translucent and light lines will be used. Moreover, using one single material puts the accent on contrast - the gradation and the palette of tones that can be used is clearly visible. It is also a material that is easy to erase, to undo, or to fix with the fingers only even without an eraser, due to its nature that does not melt into the paper. In addition to the great amount of his sketches, Kahn's drawings also contain key words and commentaries that provide an additional clearance concerning the design development process and more details and precisions about his initial intentions while progressing in the project.



[Fig.1] Levy Playground drawing detail

### **2.1.2. Connectivity expressed through drawing methods and schemes**

The development of a project is not linear, and it is also not about summing up the accumulated draft versions and reaching a final version out of it. Therefore Kahn is always open to modifications since his sketches allow him to go back and restart over anytime, and seeking out for new possibilities never ends, even after the definitive scheme has been drawn out.

Nowadays, the architectural creation process has been enhanced with computerization, so the translation of schematic ideas to an output of architectural drawings and modeling is done by the computer, skipping

the 'man-made' schemes.

The designing process itself can be roughly divided into two separate phases. The first phase consists of searching for ideas, for a sparkling illumination, and the second phase is the finding phase, in which all the wanted answers and requirements are found. The architectural drawing is the final result that only appears at the end of all this process. However, for Kahn, this step was yet another sketch needing re-schematization, since he highly emphasized the importance of the design creation process to be left uncompleted and not to seal it as a finalized arrangements of shapes by creating the final construction drawing, but to leave a possibility for rearrangements for a yet to come new design:

"The value of uncompleted things is very strong... If the spirit is there and can be recorded, what is lost? The drawing is important, the incomplete scheme is important, if it has a central gravitational force which makes the arrangement not just an arrangement but something which gives a richness to the associations which are lost. Recording of that which has not been done must be made much of."<sup>2)</sup>

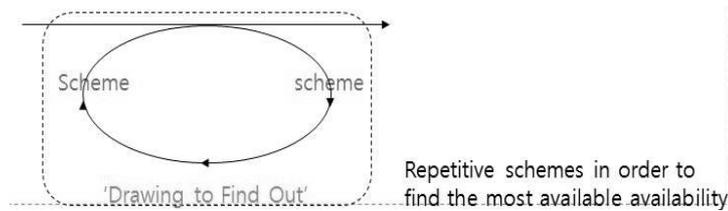
Therefore, Kahn's working process of going forwards, backwards and forwards again all along the formation is only a literal descriptive movement. The length of time spent in search of trials, is equivalent to the realization itself, and so, the resulting final design is extremely rich and complex due to countless repetitions of reformations and re-shaping of those expressive acts of delimiting, placing, measuring, juxtaposing and of finding the adequate distance for the architectural design connectivity.

"More promise than evidence, it is perhaps the very incompleteness and openness of its images which, together with the compelling 'gravitational force' of its plan, have inspired other architects to explore with their own design the

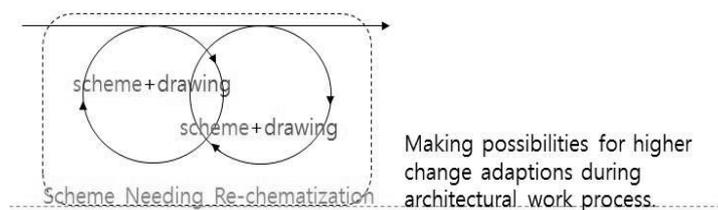
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2) Michael Merrill, "Louis Kahn Drawing to Find Out: The Dominican Motherhouse and the Patient Search for Architecture", Lars Muller, 2010, p.10

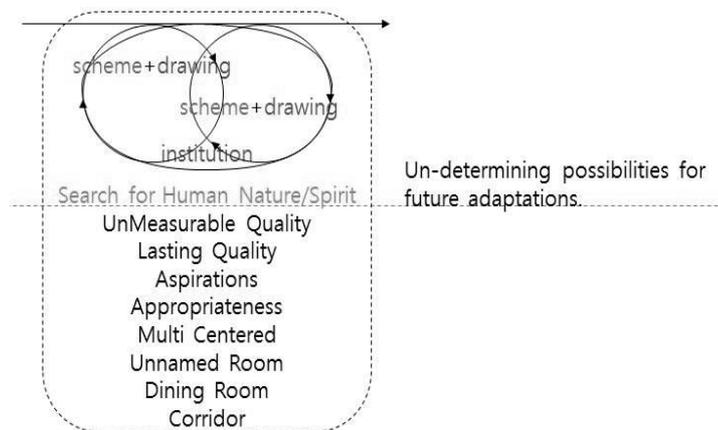
potential suggested by the unrealized scheme."<sup>3)</sup>



[Fig.2] "Drawing to find out"



[Fig.3] "Scheme needing re-schematization"



[Fig.4] "Search for human nature and spirit"

### Project analysis - Bryn Mawr College Dormitory

This project is the result of many schemes that were made in search of the strongest form. This is what was said about Kahn and the 'Bryn

3) Michael Merrill, "Louis Kahn Drawing to Find Out: The Dominican Motherhouse and the Patient Search for Architecture", Lars Muller, 2010, p.11

Mawr College Dormitory' in Philadelphia:

"The commission was to provide about 150 dormitory rooms, recreation areas, a dining hall, administrative facilities and other services, .. . The large number of dormitories required posed the problem of grouping and of finding a plausible functional and spatial relationship between the individual facilities. Before arriving at the final concept of three diamond shaped units connected at their corners, Kahn explored various possibilities."<sup>4)</sup>

The final concept and realization "of three diamond shaped units connected at their corners" was the result of the previous 32 versions made from 1960-1962. The final version dated from 1962 and the final version of working drawing dated from 1963-1964.<sup>5)</sup>

His exclamation is on the found-ment of an un-dismembered composition that was strong on its own and at the same time adaptable to whatever else.

"After trying many schemes, it was found that three square buildings, each containing one of the larger spaces and dormitory rooms, could satisfy the requirements of light and area and that by the way they were placed together could join to form one building without the use of connectors. This was now without question the scheme, considering all the requirements, the demands of space, and the position on the site. The image then became strong, so strong that one could not break away from it. You felt it could withstand criticism. Unlike other schemes which had been developed over a long period of time, this composition could not be dismembered. It had its own resourcefulness to adapt itself to whatever were the requirements of the space. Only hard work was necessary to bring all the many requirements into harness within the simple statement of the image. One immediately saw the variations of theme which were possible without destroying the singleness of the image."<sup>6)</sup>

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4) Heinz Ronner, Sharad Jhaveri and Alessandro Vasella, "Louis I. Kahn Complete work 1935-1974", Birkhauser, 1987, p.162

5) Ibid, p.162

6) Richard Saul Wurman (ed.), "What Will Be Has Always Been: The Words Of Louis I. Kahn", Rizzoli, 1986, p.4

Moreover, it is also talking about the incompleteness of the strong composition which is fixed but at the same time adaptable. It is a finalized shape that is adaptable to something else, when certain design elements allow it. First, the design has to answer to all the required programmatic demands, and in addition, it is also needed to make room for the un-programmable, a something more, a plus of unknown, which is only dependent on man's free spirit. By making a shape out of it, it is translated into a verb that describes choices that a man makes; he has to see it first in front of his eyes, in order to choose from it. An element should be inviting, calling the individual to act.



[Fig.5] Bryn Mawr College Dormitory, version 6, 28, 29

On Dacca, "You can learn even from the sense of connection, that there is an architecture of connection, whether it be the avenue which is in sympathy with the rhythm of trees, or the place of stopping where the sound of water is heard, or the establishment of an order of squares so that you can feel that there are centers around which things can generate. ... The connections of the institutions of man - and I'm not thinking of it as being city beautiful - are a sense of belonging, a sense of wanting to contribute, a sense of being inspired by the very giving of that which you don't have to give in the making of a city."<sup>7)</sup>

A 'good place' is somewhere that can awake a multitude of senses. It

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7) Richard Saul Wurman (ed.), "What Will Be Has Always Been: The Words Of Louis I. Kahn", Rizzoli, 1986, p.25

offers more options, it has a variety of places with different senses triggering elements, and it has to apply to universal senses.

### **2.1.3. Connectivity in the design itself**

#### **Multi Centered - Fine Arts Center Fort Wayne**

"The fact that various organizations come together to be a single center doesn't mean that they'll all be together but separated. Or will something new come out of the idea of them being together? Is a new thing being born, or is it just organization of various centers? The entire work so far has been to look for the nature of this combination of art concerns and how it becomes a new thing by being together rather than apart."<sup>8)</sup>

A multi centered entity instead of one, where the center is one point on this plan leading all over the place.

#### **Exeter Library**

The central main entrance hall from which all the given possibilities are pre shown, all the library floors with their books.

#### **Unnamed Room - Salk Institute**

In the center of the Institute a central room which connects all the other rooms left in the center which was labeled as "Entrance Room":

"There was a large room, not named, in the center, which was purely a place of entrance. I learned from previous deliberations what a program means coming to the architect. He reads in the program the lobby, which is measured by so many square feet per person."<sup>9)</sup>

If it would have been named for a specific purpose in the program then

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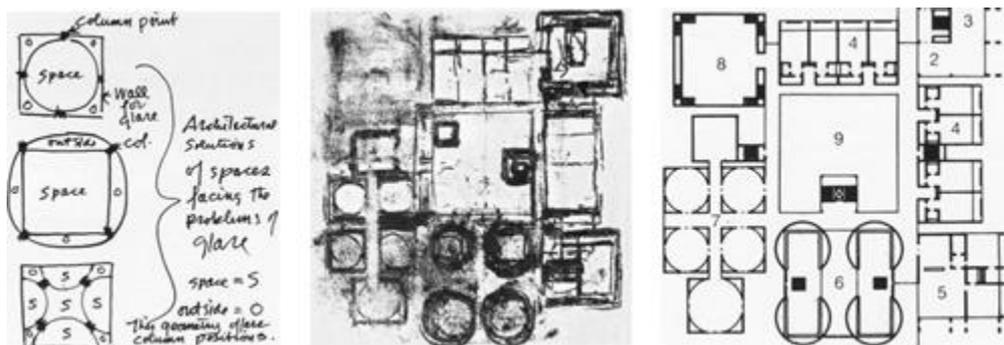
8) Richard Saul Wurman (ed.), "What Will Be Has Always Been: The Words Of Louis I. Kahn", Rizzoli, 1986, p.11

9) Ibid, p.23

it would have ruined its potential to be something else, conventional architecture is too predetermined and lets the embodiment of the program to take over flexible thinking. This place was labeled by the users as a place for temporal changing events as dining and banquets should be placed:

"The unnamed place of entrance was immediately recognized as a place where... . If you start building with the idea of anticipation... - you ruin the potentiality which a small dining room can give you: the most beautiful, the most natural seminar room."<sup>10)</sup>

If Kahn had defined a place for dining and another place for banquet, he would have had ruin the potential of the seminar room to be a banquet, because if there is a fixed place then there won't be search for a place with the potential to be, if all is given there is no place to imagine.



[Fig.6] Salk Institute, version 17, 19, 20

## The Eating Room - Salk Institute

"The bar was probably bigger than any one of those dining rooms, and that was all right. That suited everybody."<sup>11)</sup>

10) Richard Saul Wurman (ed.), "What Will Be Has Always Been: The Words Of Louis I. Kahn", Rizzoli, 1986, p.24

11) Ibid, p.23

For wanting to create the most natural character of availability, the bar was a place where vast ranges of activities might occur, from drinking to eating in different sitting positions with changing different partners, the most euphoric state of mind can be found from crystal clearness to drunkenness.

### **The Sleeping Room - Salk Institute**

"The corridors had to become galleries and corridors relegated to little sneak places, which go from one room to another privately."<sup>12)</sup>

What is truly important to men should be respected in order for let the men feel as a human being, not only some very basic and trivial things such as a place to sleep and clean food to eat, that are the minimal human rights to have, but also respect and privacy which are physically immeasurable should be respected and Kahn respected both the celestial realm and the men made realm.

## **2.2. Inspiration through the architecture of connection**

In order to constantly higher possible connectivity realms during the design process and the spatial design, Kahn heightened the inspirations giving aspects in order to provide the individual more possibilities to choose from. An architect who gives the option for the user to choose for oneself is an act of giving the right to make a free-willed choice, and moreover taking responsibility on the designed space. It is not just about assumingly letting the user to decide freely by oneself, and by doing so, providing anything at any time space. Here, the user could be anyone so there is no need to consider his needs and wishes as he is unknown. Kahn defers from his contemporary modernist as he, more

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12) Richard Saul Wurman (ed.), "What Will Be Has Always Been: The Words Of Louis I. Kahn", Rizzoli, 1986, p.23

than any other architect was particularly utmost interested in the deep inspirational relationship between men and the architectural space, a free hearted user oriented and even user specific design was aspired for. the space Kahn designed was not a universal space in the sense that a same space could be used as an eating room once and later be transformed into a storage room, it is universal in the sense that the same space he intended to be an eating room will also be so cross continents, dependent on the specific cultural importance giving to the act of eating, if at a certain culture eating was as equally important ceremonial essence to sleeping, then that room will be used as a sleeping room. This mankind universal space was made possible by the inspirations his spaces evoked in the spirit of the user, Kahn's spaces have inner hierarchies comprised from its usage importance, both rooted in his interest of the man's nature, the original nature which is even prior to birth, the first beginning meaning of the things he called 'institutions', the reason for the creation to become an existence in the first place and their most accurate transformation into architectural designs, and for re-finding this he constantly asked 'what does it want to be?' and from this belief of him he was inspired while designing, and out of this he created shapes that will inspire each man to reconnect with its genesis' nature.

### **2.2.1. Inspiring with connectivity**

On inspiration and institution, "... , that the sense of the institutions of man stems from the inspirations of man. .. The inspiration to live - I see no reason for living unless it is to express. .. And the inspiration to learn, which is really to learn to express, .. These inspirations give the material for the institutions of man. All the institutions of learning stem from the inspiration to learn. .. Every living thing, .. , has a sense of wanting to be what it is."<sup>13)</sup>

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13) Richard Saul Wurman (ed.), "What Will Be Has Always Been: The Words Of Louis I. Kahn", Rizzoli, 1986, p.20

A reference to the man's wishes and inspirations are the materials to be expressed into built institutions which has the sense of wanting to be what it originally is, the man's inspirations.

"An architect who does not retranslate the program in relation to the sense of the emergence of the new institution, of the modification of strengthening of one that exists, .."<sup>14)</sup>

A reference to the client giving a program which is his wishes, and additional value must be added by architect according to his set of beliefs, ideals, senses.

### **Salk Institute**

During the making of Salk Institute, Kahn and Dr. Salk had mutual fertilizing support for each other. Kahn talked about Salk coming to him and saying what he wanted and how this saying intrigued and inspired him:

"(Salk)..; I have ten scientists and they all tell me they need ten-thousand square feet of space." But then he added something to the program when he said, "I want to invite Picasso here!" And that really made a big difference! And my mind went around, why I don't know, to some of those orbiting things. The laboratory became very significant, and that was my commission; the laboratory as though it was a meeting house which was the center of the unmeasurable."<sup>15)</sup>

Salk was very specific in his wanting, he knew what kind of space characteristics he envisioned, and using his vocabulary provided a very personal and intimate aspiration of wanting a building that Picasso would come to. For this was enough, as it is Kahn's job as an architect to

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14) Richard Saul Wurman (ed.), "What Will Be Has Always Been: The Words Of Louis I. Kahn", Rizzoli, 1986, p.21

15) Alessandra Latour (ed.), "Louis I. Kahn: Writing, Lectures, Interviews", Rizzoli, 1991, p.210

understands his clients' aspiring wishes, just as he understands material's potentialities and not only its physical capability, because the capability of a certain thing is dependent on the belief of what he is working with, as he said on a lecture once:

"I don't live in concrete, I don't live in steel, I just sense their potentialities." And to a student's question, "... I cant quite understand why you use concrete, a material that is best in compression, in a tension role." Kahn answered, "... But your question is good and one that should worry you - and for that reason never use this design."<sup>16)</sup>

An architect has heavy responsibilities, he should know that each line he draws on paper will in fact be translated and made into concrete materials in a physical location. An architect must know his tools, to the student that did not understand the material as Kahn did, there was no use in even explaining it. As you build with and how you believe it to be true, a man has to be honest to himself.

The concept of the three parts expresses the form of Salk Institute; the laboratory, the meeting place and the living place:

"The laboratory was the center of the measurable, beginning with nature. Physical nature lends itself to measurements. Whether we ever reach ultimate measurement isn't of real concern. .. Every part was conceived in the character of unmeasurable qualities."<sup>17)</sup>

Kahn believed the laboratory was the center of the measurable which its origin begins with immeasurable qualities from nature. What is important is not only the final scientific result of the scientist; in order to produce a result, a process should be passed. The main problem is to think of a creative way to solve a certain problem, a second of illumination and enlightenment is required, a method that other could probably have not

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16) Richard Saul Wurman (ed.), "What Will Be Has Always Been: The Words Of Louis I. Kahn", Rizzoli, 1986, p.26

17) Ibid, p.23

thought about, so it was important to emphasize the immeasurable part of the program, everything that was not the official research laboratories was the most important supporting of the scientists, as the time that they were in the lab producing results, its supporting recreation, chatting, talking and eating places were had to be inspiring the activities and accommodating to stay more time, resting is as important as studying and a friendly environment inspires the man to act in creative ways, positive space aspires for good behaviors, the whole design characteristics served for the intended uses and meanings expected:

"I mean in that sense the institutions of man, that a certain environment of spaces - friendly, inspiring to the activities of man - be sensed by the architect and presented to the client as his best contribution."<sup>18)</sup>

### **Johann Sebastian Bach**

".. trying to explain the nature of so great a man as Bach, .. he had a sense of what art was .. All Bach cared about was the truth. Undefined, unmeasurable truth. And so it is with architecture. It's a search for the truth."<sup>19)</sup>

Kahn talked about Bach's ability to bring the feeling of same senses from his music to all his listeners, when imagined, it brings a smile, what the listener senses, is the truth which is objective and subjective, but first of all it is universal.

#### **2.2.2. Inspiration in play**

Inspiration can also be found in Bruegel's 'Children's Games', one of the most known painting of children playing. That painting illustrates in one large frame a manifold of children plays, and shows the origin of what

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18) Richard Saul Wurman (ed.), "What Will Be Has Always Been: The Words Of Louis I. Kahn", Rizzoli, 1986, p.24

19) Ibid, p.28

a play space was like, before the creation of specific spaces designed only for play. Before the invention and creation of these purpose-oriented spaces, play mostly occurred outdoors in the streets, and in the areas connected to those streets. This painting shows the emergence of spontaneous communities that can be created in shared, public spaces.

The play activity is described as being emerged and made possible from a ground that seems empty. However, it offers a large variety of possibilities for a play that appear free but is actually deliberately organized. What only appears to be pairs of oppositions just enhance the playfulness' spectrum; it is a space of constant flow that recreates itself constantly, as summarized by Kim Kwang Hyun in 'Architecture of Play'.<sup>20)</sup> In the 'Children's Games' oil on panel painting, all the elements which compose play are illustrated: the ground is one single united space, allowing the possibility of creating mixed plays, and through those plays, by generating continuous connections, play is freedom, played with its own rules, sensed through the footsteps which visualize communal play. The space only seems empty but provides constant reasons for all the elements to keep moving on and to initialize the creation of loose organization such as play to go on.

In the painting 'Children's Games', the settings of the panel try to cover the whole possible transitional spectrum of sites and the sites where play occurs. The site is located from dense urbanism to its end boundary of nature and the playing site is situated from in between streets and nature.

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20) 김광현, 제3의 텍스트, 놀이의 건축, p.114

"피에터 브뤼겔의 그림 '아이들의 놀이'는 문자 그대로 놀이의 혼돈 공간이다. 각종의 놀이가 하나의 마당 안에서 전개되고 있는 이 그림은 아이들의 행위 그 자체가 놀이이지만, 커다란 공간 위에서 펼쳐지는 수많은 인간의 행위도 놀이와 같은 느슨함과 조직이 있다. 공원에서 쉬고 있는 사람들을 잘 살펴보면 여러 가지 행동을 하고 있다. 서 있는 사람, 움직이고 있는 사람의 궤적만을 살펴보아도 그 궤적은 미묘하게 서로 구분된다. 텅 빈 것 같은데도 사람들은 무언가의 계기를 가지고 끊임없이 움직이며 놀이와 같은 느슨한 조직을 만들어낸다."

"When the eyes scan Children's Games for sign of a unifying idea, what they first tend to notice is the opposition between the pastoral area at the upper left and the receding street at the upper right. .. What they depict, however, is a more secular and contemporary-feeling dichotomy between nature and culture, or rural and urban life."<sup>21)</sup>

The panel is a landscape transition from its upper-right wing's end of an urban city to its upper-left wing's touch of the surrounding nature, from the city to its border with nature, a U turn is made from both upper end points being vanishing perspectives, one of the built city and the other of the untouched nature.

"Their positions relative to each other imply an inland view of the city, seen from its rural outskirts, thus reinforcing suggestions of the painting's central region as somewhere "between" nature and culture, rus and urbs."<sup>22)</sup>

The panel's right wing is the densest part of the city, what appears to be a main street with buildings on both sides vanishes to one point perspective of a religious building's silhouette in the far upper-end, its frontal corner is an empty space that seems to be a construction site with building materials: bricks, sand, wooden beam and stone column laying around. The panel's main is the middle area defined by a civic building in the upper side and a craftsmanship building in the bottom-left corner with its garden. The upper-left side continues from an openness of a civil building to meld into a natural greenery piece of land composed with grass, trees and a water stream. This entire site serves as a play occurring site, the main space for play spreads out from the streets in between buildings to an empty lot into the nature itself. A flat terrain is the shortest and easiest method to cover a large amount of land by foot. In total, two hundred identified children of all sexes were counted, 122

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21) Edward Snow, *Inside Bruegel: the play of images in Children's Games*, North Point Press, 1997, p.83

22) *Ibid*, p.83

boys and 78 girls, and they were playing 91 identified games.<sup>23)</sup> Some played alone but mostly in being part of a group, in its heart a certain game is played which pulls and moves all the individual children as if there were one entity generation themselves from a common goal. The type of the game is needed to be interesting and capturing enough to sweep the whole.



[Fig.7] Bruegel, 'Children's Games'

### 2.3. The notion of availability

The inspiration, the belief that derived Kahn in his making is that his 'force' is a set of belief which is so strong that pulls him constantly, no matter what he thinks and creates, all led to finding the ways to

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23) Edward Snow, Inside Bruegel: the play of images in Children's Games, North Point Press, 1997, p.84

transform this into architectural forms and spaces.

Kahn's design has great respect to man and this respecting is acceptance, as his acceptance of man's will for freedom made it possible for him to accept men as they are and did not try to change men, but accepted man as he is, which is why he made possible for everybody to be just as they are, he created the architectural form in which every man is free to do as his heart wishes.

One of the most acceptable psychological theories in the relationships between man and in the interpersonal relationship says that to love a person is to let him be what he is, accepting him as he is, and not to try to change them. This is said to be the true love. This simplest sentence is the hardest to keep in the world because it is going against man's own born nature to create and to be in control.

A man's fight with his nature not to control the one he loves is equal to an architect's fight with his profession not to control and decide on everything.

Kahn was the incarnation of these two opposite natures, loving man and loving to design for man; he had a constant inner-conflict of how to create nothing. Not by not creating anything, but by creating the form that will contain this nothing and by doing cherish the nothing.

This nothing is about not pushing a man to a corner as a metaphor to say not leaving a possibility to be, neither forcing upon men to choose from a situation in which there is nothing to choose from, there is no choice but to take the given, shown, created for path.

In order to make a space providing availability, something must be left incomplete, providing all the right answers to a problem, as an architect creating the right spatial answer to all the requested programs is solving everything perfectly, and perfection does not leave a room for arbitrariness, but as being only human beings and not all pre-programmed machines. Man acts and learns. Not creating a perfect space and leaving a room for the un-perfect is the act of

incompleteness. Architecture which is made by humans for humans cannot be a perfect creation by its nature of creation. Incompleteness is the act of leaving a room for the architectural creation to be humane.

## **Chapter 3.**

### **'Incompleteness' in Playgrounds**

#### **3.1. Former Playgrounds**

3.1.1. Louis I. Kahn's playgrounds

3.1.2. Isamu Noguchi playscapes

3.1.3. Summary

#### **3.2. Levy Memorial Playground as a landscape**

3.2.1. Macro world: version 1

3.2.2. Contoured play ground: version 2

3.2.3. Inter play of contours: version 3, version 4

3.2.4. The incompleteness of Levy Memorial: version 5

3.2.5. Summary

3.2.6. Miniscenarios

This study started from this particular saying of Kahn about a certain playground (the 'Levy Memorial Playground'), which led to search other words and works of Kahn from an assumption that this kind of thinking and saying did not come out of the blue, but there was a reason, some set of believes that made it possible to reach this kind of statement:

"It must be entered with a sense of service, so that your belief is felt. if for instance you sense the nature of children who look at everything as if they were going to destroy it - those forces in them - that intimateness - the spontaneity of participation, where it exists, if you sense this, you also sense that a thing is made to be incomplete for play. This sense of incompleteness has to be affirmed."<sup>24</sup>)

When a child is born and learns to move his body on his own, he firstly grabs what is placed in his immediate surroundings and touches and puts it in his mouth; all these reflexes are born with movements and are also named by studying the environment. Later on he is given more and more objects to be studied which are enriching and developing and evoking along more numerous and diverse senses. The child's study is called playing, as it had to be differentiated from the commonly used study word referring to a didactic studying from a qualified persona for teaching a specifically learnt field, and playing was used for self-learnt materials, so the formal study is referred as study and the informal as a play, as it is mostly done in the natural and familiar habitat alone or with others which are met through informal ways. In other words, the child's learning and investigation is made through playing in his natural habitat which already covers all the basic object-based knowledge and basic social skills. After his enrolment to formal study institutions defined by the government, everything is being polished and studied in depth. When a child in school learns the answer to what is one plus one, his knowledge of what is one, is learnt much before. It is the child's way to learn through play.

When a child is learning, studying in official institutions, the learnt object is gradational, and so is his education made out through from personas. Firstly, at home from his parents and siblings, later, from other children, when he encounters other subjects than himself, other children. Also the environment gradually changes from his room to the entire house, and then to the outdoors, in the streets, and each phase that has been conquered in a way, and made familiar with thoroughly, then everything gets mixed, as Kahn said to students:

"Merely by the simple imposition,  
streets became parking places-

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24) Robert Twombly (ed.), "Louis Kahn: Essential Texts", Norton, 2003, p.192

or even play spaces-  
the way it used to be.  
I know when I was a kid  
we used to throw the football out of a first-floor window,  
We never went to a play space;  
the play space began immediately.  
Play was inspired, not organized."<sup>25)</sup>

When play occurs, then every place is a play space; the child does not differentiate the fact that a certain place is meant for playing. The playground is the first facility made purely to encompass and to inhabit the play in a specific place out of the house and away from the streets. Architects build the physical environmental space that contains humans living, and there are several particular buildings that the child passes through and experiences since his birth, starting from the room and the house and going out to the streets, where all starts. The playground is the continuation of the street as Kahn said; the elements that composed the familiar playground were taken out from the streets and are placed in the streets but in a defined and separated area meant specifically and only for play. So the child's first foreign environment which is apart from his home and family, where he mingles in the company of other children, is the street, that is to say, the playground. His first model of the social life that he will have to deal in the future is all there, only just in small a miniature form like a preview to the upcoming future.

A place that enables accommodations of primal sets of skills learnt from playing with other children is a place that its design characteristics enables those skills to be developed, as it is the first place for learning out playing, the playground is also the first facility made, that contains all the sets of design methods that an architect should learn to plan in further institutional buildings.

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25) Louis I. Kahn, Dung Ngo, "Louis I. Kahn Conversations with students", Princeton Architectural Press, 1998, p.23

### **3.1. Former playgrounds**

Kahn and Noguchi met when each of them already designed several playgrounds with different emphasis. Kahn designed playgrounds with focus on merging and filling in unsolved voids by creating a community and bringing joy to children, by providing them up with gear facilities. And on the other hand, Noguchi designed playgrounds experimenting sculptural play elements with emphasis on play behaviors.

#### **3.1.1. Louis I. Kahn's playgrounds**

Kahn designed two children facilities; one in order to create a community in-between dwelling blocks as part of a neighborhood renovation, the other, in the backyards of an orphanage which accommodated the newest play facilities of the after war epoch with a fireplace in its heart to bring joy to children's hearts.

##### **(1) Social housing playground**

Kahn and Stonorov, who mainly worked in the field of social housing, were commissioned in 1943 to make a plan that would:

"Integrate four existing city blocks into a community by providing it with a neighborhood nursery and playground, including a store."<sup>26)</sup>

Further is unknown and records of this ground only exist in this form of correspondence letters in Kahn's archives, but more can be learned from the context of the design in Kahn's works chronology. In the beginning of the 1940's, Kahn put emphasis on the social responsibility of the architect and focused on the problem of mass housing, and lead a research group called ARG, Architectural Research Group between the years 1931-1943. As for planning dwelling, the most important and the main concern might have been to place the standardized play equipment

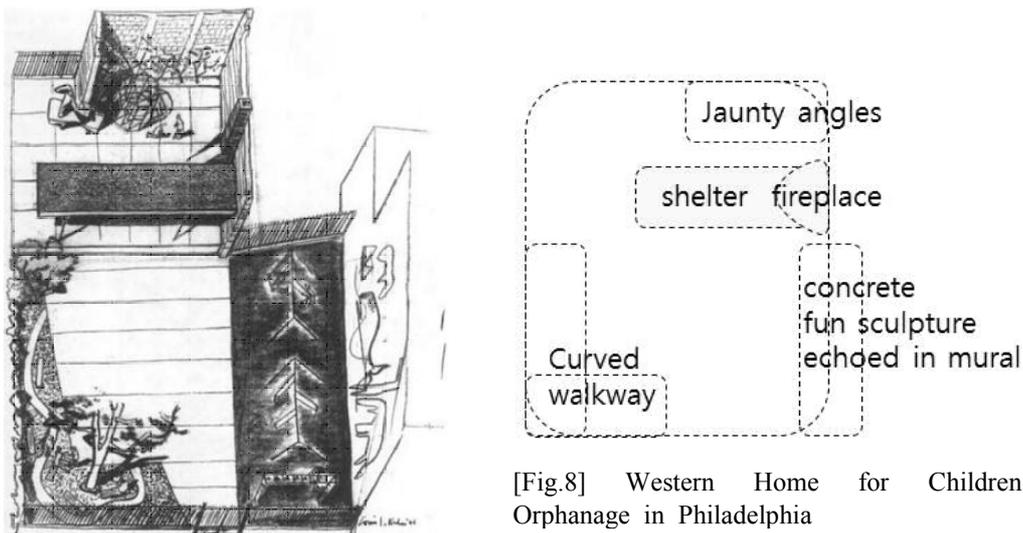
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26) David B. Brownlee, David G. De Long. "Louis I. Kahn: In the Realm of Architecture", Rizzoli, 1991, p.3

in a way that would strengthen the community structure.

## (2) Western Home for Children Orphanage playground

Kahn designed and built a playground for the Western Home for Children Orphanage in Philadelphia during 1946-1947. The location of the site was around the corner from the graphic Sketch Club where Kahn himself had spent many boyhood Saturdays. Looking into Kahn's childhood facts reveal that he was from an immigrant family to the US. Philadelphia gradually became his home, so in addition for being a foreigner Kahn also looked differently, when he was very young he was involved in an accident that gave him scars on his face, this caused him to be shy and was afraid to associate with other kids, he tells about himself being a quiet child and not going out much to play with other children, this could be the reason why these grounds were unusual in Kahn's works, pouring extreme efforts to make this place so happy so children will only focus on playing together and forget everything else. Vincent Scully wrote a strong statement about this ground which differentiates it from Kahn's other projects of that time:



[Fig.8] Western Home for Children Orphanage in Philadelphia

"Of all these idealistic projects (planning for the social with responsibility), the one that perhaps best captures the hopeful spirit of the time was the playground."<sup>27)</sup>

From detailed observation on his bird eye perspective drawing, it revealed that the playground was equipped with all the top of the gear play elements that a child could have ever wished for at that post war time in Philadelphia or even anywhere in the US.

The yard was composed of four Play Elements; Fireplace, Curved Walkway, Jaunty Angles and a Fun Sculpture. All the elements were distributed in the perimeters and were defined by jaunty angles and surrounded by a curved walkway as in the rear corner stood a biomorphic concrete 'fun sculpture' whose shapes were echoed in a mural on the wall of an adjacent building. In addition there was an outdoor hearth sheltered by a horizontal roof slab which was the heart of this playground. A real fireplace with real fire burning inside, children gathered around it with a sense of commonness, and happiness rayed out of little children playing around this source of warmth, just happy to be there doing that:

"It must have seemed perfectly complete when the pleased sponsor told Kahn that he had seen little Brownie Scouts hopping gleefully around your fireplace."<sup>28)</sup>

All together being a whole structure made out of several different elements, the playground seemed to function perfectly, in serving its users just to be happy by simply playing there.

There is a commonly known biblical song about a child nature said to be playful, a child is playful in his nature, and for that playfulness he is

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27) David B. Brownlee, David G. De Long. "Louis I. Kahn: In the Realm of Architecture", Rizzoli, 1991, p.4

28) Ibid, p.4

loved and cherished, he is called dear, he is being loved by his joy and unstained happiness, that kind of playfulness is found here.

### **3.1.2. Isamu Noguchi playscapes**

Although Noguchi designed six playgrounds, only one was realized and four of them were before his collaboration with Kahn. Ranging from play facilities landscaped out from the earth to individually stand-alone equipment. He Experimented what is play itself and in order to search what is needed for play, redefined the "S-es; Swings, Slides, Sand boxes, Seesaws and Spray Showers" which were systematically implanted in any empty lot and were labeled as children's playground. Noguchi desired to bring fine art into the context of everyday living. His lifelong involvement in the design of playgrounds and "play sculpture" stemmed from his ideology and belief in the educational potential of sculptured forms for physical use by children.

An article published in the New York Times on MoMA's playgrounds exhibition concludes Noguchi's unrealizations' best, focusing on featuring a playful illustration of elements in Noguchi's playgrounds and also tentatively praised New York City's Parks Commissioner's equipment for its efficiency and safety, but suggesting:

"Perhaps they could do more as childhood is a time for developing muscles and physical coordination.. but it is also a time for developing the imagination and an awareness of and sensitivity to beauty.. such considerations are more than "arty", They are of basic importance."<sup>29)</sup>

#### **(1) Play Mountain**

The first design proposal in 1931 with 'Play Mountain' was made as his first sculpture made for New York City's Parks Commissioner, approaching them himself and proposing to build a ground that would take up one city block. The approach to design was too differed from

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29) The New York Times archives

commonly known playgrounds by then, and was rejected for two main reasons: municipal playgrounds were the domain of urban planners and landscape architects whom designed them all and New York City had never engaged an artist in that matter, and just after World War II, playgrounds would be dealt as experimentations in order to promote creative play, therefore it seems now that Noguchi's approach was ahead of his time.

Noguchi's design attitude to children as users experiencing his playground was of secondary importance, the main attention is on the designed form itself and its glorification, the sculpture needed to be integrated in the urban surrounding, thus needed to be made for more than mere decorative use and required some kind of interaction with human beings and in this case with children.

The designed form displays an intermediate medium to connect users to genesis' forgotten emotions, the accentuation are not created in order to evoke new social skills for the users but their usage of the sculpture would minimize what men feel and make him feel as a midget when standing near that creation. It evoked the feelings of fear of God and respect at the same time.

The shape was an informal model for equipment-less playground to be constructed entirely out of shaped earth, including earth piled to form a central pyramid and shelter with steps along one side, carved slopes to form a built-in slide and accommodate sledding, a swimming pool, and a band shell with the steps doubling as seating. The stepped stairs of the pyramid and slopes' form has no disturbance on them, its continuation is only interrupted by divisional gap made from the three massive steps, thus made a form of piled up earth so that vegetation can grow upon them, on winter being a natural water fall or a chute when covered by snow.

A child can walk or run across over them, halting or sitting, and can even attempt to roll over it. The scale is made to answer nature's form

and is meant to be undisturbed by children's way of handling a play facility. With no added equipment children's exercise and entertainment could be stimulated by simply providing earth modulations and steps, their play would be derived by running, jumping, and climbing in and around the massive sculptured earth form. The untouched primer form will lead to primer and basic play activities and flexibility of activities created when the primer form is engaged into flexibility by making room for the integration of the form with other forms except its own.

The three step scale does not fit a child's play element. Its scale is monumental and could only be understood as a monument to the petit child, thus its interpretation into play is limited and its emphasis is on the evocations of archaic emotions. A child can stand or sit on the verge of the edge and look down or above if he is on the top and if he is on the bottom while leaning against it. There is an interaction between the stairs in order to differentiate the above physical jargon and the corporeal materialistic with earthly senses.



[Fig.9] Play Mountain

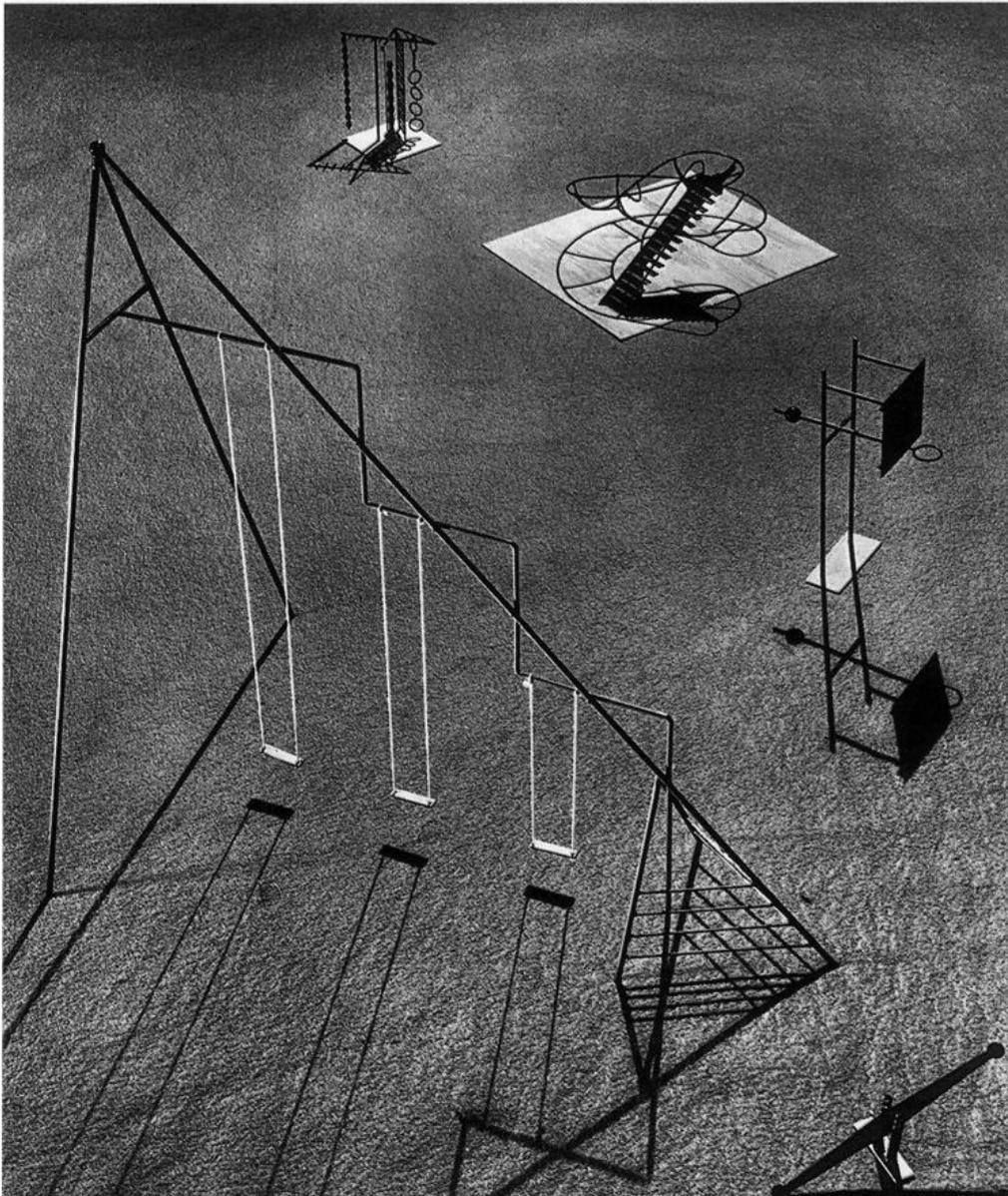
## **(2) Playground Equipment**

Noguchi's second playground was designed in 1939 called 'Playground Equipment for Ala Moana Park' designed in Hawaii originally but eventually was not built. This design is composed of five play elements which meant to be play equipment for a playground inside a park. There are individually standing equipment comprising slides, basketball, swings, seesaws, and a mounting equipment. All the five designs were recognizable as play equipment which is in fact the extensions of the traditional typical playground equipment.

Back at that time the field of playgrounds' design was also too young and too standardized to be receptive to Noguchi's artistic interpretations of form and function. To a large extent, the type of playground in New York City was a typical playground across America around 1950. They were characterized by the "S-es"; Swings, Slides, Sand boxes, Seesaws and Spray Showers which varied little by little from the playgrounds built at the start of the nation's playground movement at the turn of the twentieth century." On Noguchi's 'Playground Equipment' design, the quest of play designs search, their structural form and unity of size were questioned and reinvented.

### **Swing**

A swing's seat is played with for sitting or standing and swinging, the investigation of sameness in the effect created from two different modes are combined and brought into a single equipment; the sensation created from standing on a swinging seat and also the act of climbing onto something but with the addition of gravitational movement, and on the other hand compared to the sensation created by climbing a still thing while in the immediate there is the swinging movement which is sensed in a not physically direct way but by climbing with sensed movement or actual movement.



[Fig.10] Playground Equipment for Ala Moana Park

The three heights of the swing's "rope" is also the actual size difference impact on the swinger's senses, letting the child experience and to understand on its own the coordination between scales and its senses. A

longer rope, fixed higher, has bigger movement momentum and will create more powered swings and will swing higher and its radius will be bigger. To each child experiences are individual experimental learning from utilizing it for each unit.

Each equipment is designed to maximize the possibility for enriching individual and private learning, what is learnt when playing together in an interaction with others, produces different types of emotional experiences than one done alone in person, and cannot be felt unless it is not practiced on the flesh. On the other hand, different are the things that are learnt alone or with others, on this particular project the emphasis was on the secular particular experiences.

### **(3) Contoured Playground**

Noguchi's third playground 'Contoured Playground' was designed in 1941 for New York City. His two earlier projects were rejected as they were said to be dangerous for children since it might expose them to such kind of play elements, and that is why this time he designed it differently:

"I felt obliged to answer all the dire warning of the danger to which I would expose small children with my play equipment,"<sup>30)</sup>

This obligation to prove that this ground is accident-proof caused him to change not only the outer form rigidity but also the usage of chosen vocabulary became round. The design was made entirely of low pitched earth modulations, the design proposed a molded surface with regular earth mounds and hollows, on the contrary from his previous designs that were comprised of singular equipment, here, instead, the ground itself would serve for sliding, crawling, and exploring, with the added feature of water sprays in the summer months.

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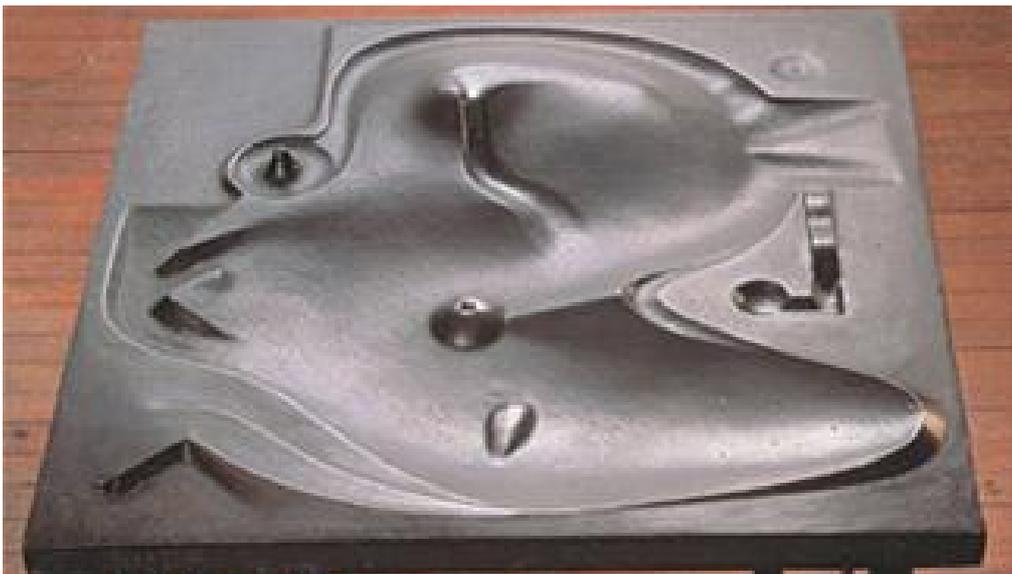
30) Shaina D. Larrivee, "Playscapes: Isamu Noguchi's Designs for Play", Public Art Dialogue, Vol. 1, Issue 1, March 2011, p.57

Not only the shapes were changed but the vocabulary chosen to entitle it was also:

"Contoured, adj, is a contoured surface which has curves and slopes on it, rather than being flat."

"Contour, n, the general shape or outline of an object or on a map is a line joining points of equal height and indicating hills, valleys, and the steepness of slopes."<sup>31)</sup>

Apart from the terrain's geographical descriptions, "Contour" in the Arts is the perimeter's outline created if there is an emphasis on the transition between two matters; then their in-between will be contoured, the object of the prominence could be towards the inner or outer of the matter. In this "Contoured Playground" the contour is the line in which the earth starts to be distorted into curve and spline and creates the boundaries of the ground to be a soft transition to be served for the intended playing.



[Fig.11] Contoured Playground

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31) Collins dictionary: 'Contoured', Contour'

### **3.1.3. Summary**

In spite the fundamental differences between Kahn and Noguchi since the beginning of the cooperation, shapely linear and round Kahn used material as to capture and show celestial and divine material of nature, and man just happen to be using it too. Instead he rethought it (modernism) by dealing with its parts, and in so doing came ultimately to change it as a whole. Beginning with aspects of mass, he later examined aspects of spatial division, of openings, of interior and exterior correspondence, so that in the end nothing remained the same. "In Kahn's psychological edifice, man is small; the greatness of his architecture the result of a deft but largely illusory amplification of forces bequeathed him by nature."<sup>32)</sup>

But Noguchi's designs are made for people to be experienced with the whole body, as Kahn's building only look holy, it was created for man to be used in a holy and respective way, there is an emphasis on the sacredness of the space because of the utilizations of God given gifts as the sun, sky and earth, but they are just materials as a physical concrete versus a-physical light, they both are used as materials just they are made from different physicality.

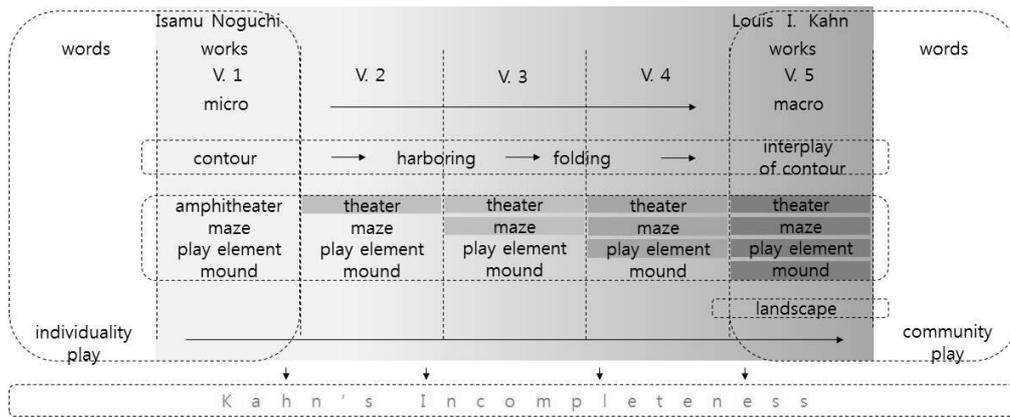
### **3.2. Levy Memorial Playground as a landscape**

The 'Levy Memorial Playground' is a corner stone in playground's design created by the best in their respective fields. A playground of such scale which was expected to cost one million dollars has never been seen before and this caused a sensation, vastly covering the local newspapers. The 'Adele Levy Foundation' owners, New York City's mayors and local residents, all had strong pro and con opinions which caused it to be re-designed each time and eventually led to unable the building due to

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32) "Play Mountain Isamu Noguchi & Louis I. Kahn", Watari-Um, The Watari Museum of Contemporary Art, 1996, p.51

political reasons.



[Fig.12] Levy Memorial Playground analysis

## Landscape

The ground consists of a complicated site of three levels; the Riverside Drive covering the tracks of New York Central Railroad and a retaining wall and a steeply descending level. Even before planning the site the important role of the terrain was noticed by the commissioner:

"..that Noguchi and an architect visit the park site together to study the topography and determine how the terrain lends itself.."33)

A short time after he joined to visit the terrain with Kahn, Noguchi suggested to divide the work between them:

"My part will be more the form, yours more the structure although it may be difficult to differentiate one from the other."34)

Noguchi's work division had a critical impact in the future as the design process had deepened, as Kahn from his architectural point of view transformed the playground to be more structurally built.

33) "Play Mountain Isamu Noguchi & Louis I. Kahn", Watari-Um, The Watari Museum of Contemporary Art, 1996, p.45

34) Ibid, p.47

The sloppy terrain dictated the placement of the main elements, the land's natural shape was used as a given parameter which was integrated and directly influenced the placement. The theater was located from the beginning in the area with steep lands and the existing retaining walls were incorporated in the creation of the maze. The mound was placed where there was relatively a smooth terrain with gentle slopes, and by using the existing naturally given ones, only little additional touches were made to enhance the already existing. Melding with the land made the structure and the earth to complete each other into one landscaped playground.

All the models were first made in clay burnt in earthy colored vivid brown, using this material blurred the end and the beginning of the existing land and the proposed plan, from the designer's point of view it was a welcomed addition to visualize the intention. However, looking at the photographed model in the newspaper articles the playground looks as it was built in concrete only, and in fact the whole playground was intended to be built in concrete but emphasis on this fact just created stronger inhabitants objecting to its building. They were unwilling to even consider looking more carefully on the proposed design and were busy focusing only on the visual aspect of the ground saying they do not want more concrete in their lives, nor the recreation places to be covered in concrete, and did not even listen to Kahn's explanation.

From in between densely gathered thick trees, in what looks like a forest or in the inner depths of a park, there is a main void in the middle and some unplanted areas as wilderness cleared its way by buildings, revealing what looks like ancient remains, its specific boundaries are hard to recognize, shapes unclear to be identified, reminisces of some half circulars and partials.

Amphitheater: The heart of the amphitheater is a semi-circle open in one part, its upper boundary where the facade of the nursery school has two defined lines showing the firmness of the wall, there are some

black tiny lines around this, its scale is of humans, just showing its immense monumentality, on its left side where the theater's sitting place is drawn as some huge sharpened stones piled together, in the center a fine double circle is drawn, its center is a water fountain in summer, and as the seats are introverted towards the inside it is also the stage of the amphitheater. As if being deteriorated by time, the grounds covering low height plantation taken over and invaded inwards the manmade structure, as a sign victory of nature's force upon man.

### **3.2.1. Macro world: version 1**

#### **Project development process**

The playground designed for a New York City site along Riverside Drive between 102nd and 105th Streets, was supported by the estate of Adele Levy, who had also been earlier active in funding playgrounds. After her death a foundation for her memorial decided to build a playground for the public and suggested to donate half the building's cost while closing with the mayor to supply the other half of the amount and the land. Isamu Noguchi was commissioned to begin its design in 1961, and he sought the collaboration of Kahn in August of that year. And so their collaboration began.

The first version of the playground dates from 1961, and the scheme layouts were planned to be between 101-105 Streets. The design took advantage of the sloping site, placing most work on the intermediate level between the city block and the Hudson River. Its natural topography made possible for bold gestures with surroundings and structures that were visually hidden from the Riverside Drive due to its terrain.

The grounds is comprised from Play Elements and more; a multipurpose stages, an informal skating rink, a place for teenage sports and a building for an all-weather nursery school and a community

building that was buried into the land, with clerestory high window lighting and a sun trap which is connected to the outdoor open-sky area dedicated to toddlers, a sandbox and a "sculptured climbing mountain" for youngsters and for elder kids, "slides sculpted from earth". The combination of multiple ages shows a balance between the present and the future in order for these grounds to always be functional.

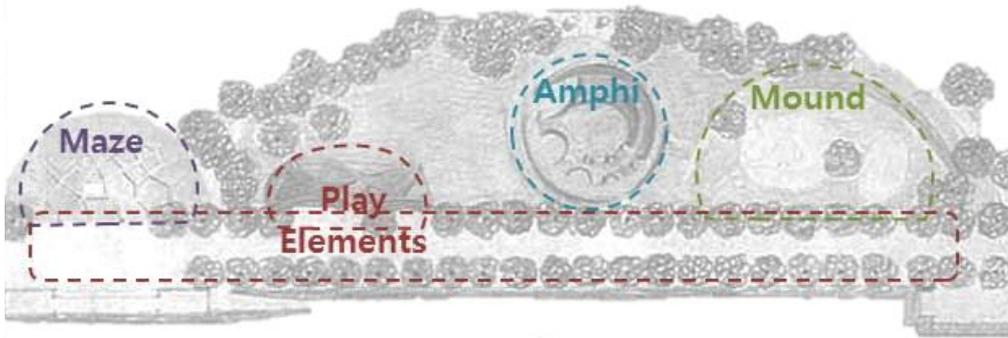
There is a delicate landscape treatment with tremendous consideration of the existing planting locations which can be seen from the plan drawn in 1:40 scale, with separate indications for existing and proposed planting. Traces of forms created from local greenery is very much evident in the jungle gym area. The placement of playing elements is in accordance to topographical ground shape, along with the turbulent topography, steeply terraced in mélange with the existing planting. The making of a form out of the undefined, the naturally already existing planting were written again, and a delicate closure adjacent made an always-existing natural shape.

There is a creation of an inner street separator with concrete play element of various forms along its length. The placement of play elements on site are separated into divisions of upper- which is adjacent to dwellings, and lower- which is closer to the Hudson River, which are divided by forces of soft and rough playing aggression activities. On the lower side with existing sports ground the rough activities are placed; swimming pool, skate rink and an area for elder children. On the upper side with existing topography and greenery, an underground nursery is the core, generating further to north amphitheater, a jungle gym and sand garden, to south play mountain and a slide mountain.

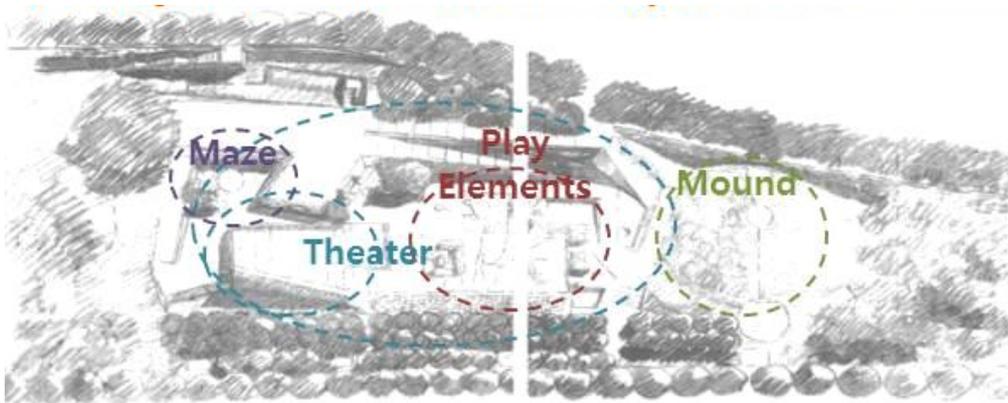
### **Play Elements: from micro to macro**

The playground is composed of four play elements; Theater, Maze, Play Elements and a Mound, each form is changed from an introverted individual play enclosure to an extroverted community play gathering

landscape through the evolution of the five versions.



[Fig.13] Version 1



[Fig.14] Version 5

### (1) Theater version 1

The idea of incompleteness has evolved and enhanced itself throughout the design process from the micro amphitheater of the first version to its development to the macro theater of the final version. According to this conceptual attitude's change, the designed play elements and the play activities are dispatched throughout the grounds.

The amphitheater functions as a core event generator, a beginning point that initializes a starting point for further activities distribution throughout the rest of the playground. It is the gathering of the main

functions which their gathering inwards defines and creates a middle public area. The method of multiple characters' facilities gathered during the design process to apparently compose a single form made from dual meanings and its leading to a third creation, is done in order to make it more open to unknown possibilities that the design might further imply.

In the first architectural drawings of the playground at were made, dating from December 1961, in the milieu of the plan there is a marked indication of "Play Mountain" alongside with "Amphi-Theater" and "Nursery (underground)" which together from facing opposite sides are an enclose to a circular shape. It is the same "Play Mountain" of Noguchi's first designed play element which he returned to:

"At the same time, I was making "Play Mountain" which was intended to be an extension of the idea of "playground". I wanted to make it cover one city block in New York, as an increase of play space. This idea, which I had in 1933, I never lost. I have always kept that. I'm very stubborn. I keep going."<sup>35)</sup>

Except from the terrains complete model, there are also four separately made bronze "Study Model" for each one of the four assembling Play Elements which are the most detailed documents showing all of its embodiments' parts.

Noguchi explained about the "Play Mountain":

"The heart of the plan is a nursery building placed as near to Riverside Drive as possible which will supply the functions necessary to lengthy sojourns in the park for little children. This building is shaped like a cup, a sun trap for the winter months, a fountain and water area for the summer. The service and play rooms are built underneath the ramp and under the open air play and rest area so that the roof has a double function. From this central point

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35) "Noguchi, Play Mountain Isamu Noguchi & Louis I. Kahn", Isamu Noguchi, "The Road I Have Walked", Watari-Um, The Watari Museum of Contemporary Art, 1996, p. 100

radiates the play area with definite but not limiting forms to invite play; first, integral with the nursery, is a play mountain, like a mound of large triangular steps - for climbing, for sitting, - an artificial hill. Outside this central core are giant slides built into the topography, areas for home games. Things to crawl in and out of. There is also a large oval sand and pebble area which is crisscrossed by maze-like divisions: a theater area with a shell for music, puppets and theater."

"Other structures will be incorporated as we go along. The play elements are to be made permanent structures forming the landscape. They should be made of concrete with integral color."<sup>36)</sup>

The shape of the amphitheater partially still remained in its archaic circular enclosure but is a physically breached circle and only a reminiscent to the circular shape remains, about a quarter serving as large scale sitting steps are center directed. The center is formed through a ground pavement, a wide central circle creating two bigger ripples as the width of the amphitheater's stairs, while the last one is on the footsteps of the climbing stairs, which are geometrical shapes that enables invitation and the continuation of the sitting places in addition to the heightened steps, thus, more sitting is possible on the floor: it is a minimalist guidance to more possibilities. At a time of real play, if further sitting places will be needed or just because it is more fun to sit on the floor, the rest of the circular gentle pavement will be occupied, and the playing method of 'in front of the audience' will be developed to be a '360 degree, full body, frontal and derriere play'.

There is a constant connectivity to the next possibility and option; one thing leads to another and all over again. A whole new world awaits there, the only necessity is to start the first act of playing, and the rest will follow spontaneously as guiding lines were pre-dispositional.

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36) "Play Mountain Isamu Noguchi & Louis I. Kahn", Watari-Um, The Watari Museum of Contemporary Art, 1996, p.7

The center of this circular enclosure is a place that captures the sun in winter, and in summer the shadow. Water fountain was added for children to play inside the breached circular gathering composed all in together by sense of shelter, protection and security.

## **(2) Maze version 1**

Located in the peripheral corner of the northern wing, the first among all the Play Elements is positioned linearly in a chronological age order from youngsters to teenagers. The Maze is in the shape of a half circle where its cut faces the inner street that traverses the whole grounds, its inner area is defined from the rest of the playground by slight topographical differentiation where a contoured boundary is created from the inner's land lowering, a minimal intervention with no added material created a fence that gathers inwards the children.

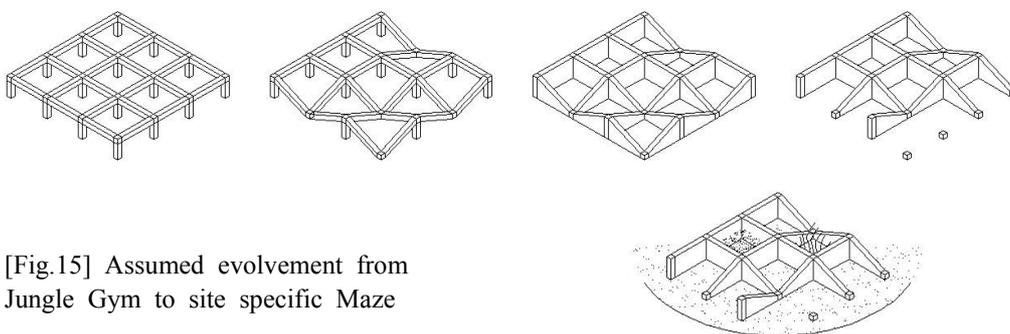
The Maze is in the shape of beehive structure of hexagon pattern connecting by joints which are created from connection of two and more poles. The joint is the highest point of the whole assembly, about 50 centimeters height with descending poles attachments. The shape has a fading connectivity towards the outer side, not only as the structure minimizes and lowers by height, its presence diminishes with no further concrete continuation, it could be duplicated continuously even outwards the contour but it only seems like an open end structure as in fact it has no possibilities for more play activities connectivity to happen from the outside of its contour. The main play leads inwards as the complexity of the network is crisscross as more play options are being possible when the design is not plain and duplicable diversely. In the heart of the Maze a rectangle is created out from the net filled with bright colored terrain, it could be a new type of attraction differentiated from its immediate and serve as a core attention and curiosity generator. This whole low rise concrete equipment is place upon a flat terrain.

The Maze is also entitled as Jungle Gym in the architectural drawing

as this equipment is more familiar by that title and as an indication for its origin. A standard Jungle Gym is known to be designed of cubics made from six poles assimilated by joints and their multiplicity creates a dense netting where children climb inside and learns to play in a surrounding where there is no plain surfaces but only thin poles. In Noguchi's attempts to widen the spectrum of activities possible in each play equipment, the Maze is his personal interpretation of the common Jungle Gym. Slicing it longitudinally and handling with the row closer to the ground only is also due to his close interest with the land, the current ground underneath, firstly changing the repetitiveness by pressing the knots of the joint and changing the continuous surface height and then filling the poles beams to be f solid surfaces and lastly taking consideration of its site specific environment by changing its boundaries connectivity.

The design's changing high is suitable for diverse range of activities; sliding downwards from the high joint and climbing it again while changing the direction of the advancement, playing at jumping over the structure and getting challenged by the structure's height.

The play also changes along the year, slight abbreviations are added caused from nature's routine; at spring fresh grass start growing in the dump soil accumulated in between the concrete, at summer time small sized children will seek for shadow besides its facets while playing hide and seek, at winter these structure will accumulate water and snow serving as small steeping pools and floating paper boats.



[Fig.15] Assumed evolvement from Jungle Gym to site specific Maze

### **(3) Mound version 1**

Being a part of the four Play Elements that are combined to the playground, the mound is the last to be transformed into being an integral part that structures the whole grounds.

The mound from the first version is a placement of two identical slopes in a half circled boundary also labeled in the architectural plan drawing as the "Slide Mountain", Noguchi explained:

"Outside this central core are giant slides built into the topography, areas for home games. Things to crawl in and out of."<sup>37)</sup>

Located in the south end of the plan, where a linear mediator leads the flow of changing play elements, there is a direct route, also paved from the amphitheater called 'play mountain', it is adjacent to 'elder children' play area of swimming pool and skate rink which belongs to the type of activities demanding more physical effort from the players, these slide mountain are located in the transition from soft play to rough play.

The form is shaped as a half circle that the central part fronts the playground's inner route, defined by a circling pavement around it, containing two mounds of gentle slopes. On them in a sporadically random way, slightly breached circles, of which two of them are placed in each mound, in a more planned and pre-intended manner, naturally along the land. The northern one is placed higher and the southern one lower due to the declining natural landscape towards the river. The breached part is facing the river too, and the circular shape is a gathering of inwards intentions, a niche for halting from the sloppy hill, and it can be used as a place for entrance, then for sitting inside leaning the back on the concrete, or sitting astride on the mound and putting the legs towards the inner void. One mound is comprised of two

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37) "Isamu Noguchi & Louis I. Kahn, Play Mountain", The Watari Museum of Contemporary Art, 1996, p.7

mounds with identical parallel sliding elements.

### **3.2.2. Contoured play ground: version 2**

The preliminary scheme of discrete circular elements that lacked strong form, to which of the sponsors complained that proposals were insufficiently developed for the presentation to the mayor of New York. So within short time the second version of the playground, that dates to 1962 were made. As for the scheme layouts between 103-105 Streets, the entire playground location was moved to the south, starting from a hill located directly below 103 Street.

There are distinctive area divisions; to the north an angular building masses with openings and complex relations of voids for sun traps grouped around a central play area, to the center that is separated by stairs, to the south where a large irregular play area with maze like play area and further south, play mounds with slides. Retrospectively, Noguchi said the design was "too narrow and cramped" as there were separated placements of the Play Elements in a linear and narrow method and the play flow was also linear and gathered the players in an introverted way.

#### **(1) Theater version 2**

The partial circular amphitheater's form is already transformed in the second version into a stepped open angled rectangular slop, located in the northern perimeter of the grounds. It is divided into three parts, enlarging the hold of the audience, encompassing them and making a middle surrounded stage, and by placing only three sides of sitting slops, the forth rib is the opening to the main plateau area of the grounds. From the first archaic amphitheater only a partial title, the "theater" remains. The facing of the sitting is dual, facing to the inward stage created from the enclosing shape of the theater and facing outward stage

created from the missing edge, therefore enabling a continuous flow to the rest of the ground. The shape is gradually changing from an introverted enclosure to an extroverted gathering and this version enables that by making a gap in a complete form, making room for something else to come in.

### **(2) Maze version 2**

The Maze's south side has no boundary, the design's discontinued poles end somewhere arbitrarily with wide opened angles letting the grass to grow and cover up those left on purpose unenclosed design, seeming to meld into the grass that covers the grounds till the Mounds.

The options of the joints and poles connectivity is less systematic and organized as in the first version, the pattern of beehive exists no more in its repetitiveness.

### **(3) Mound version 2**

This archaic commemorative feeling from the couple of mounds made from the bare hands of the creator, as if the earth was his incarnation material, pressing the thumb into the ground as the material is paved out up and scraped out. This 'undulating hill' has gentle curves and slopes, and moves gently and slowly up and down or from side to side in an attractive manner. The two mounds each slightly different from each other, from the architectural plan both of them are in the grass area, isolated in the south end of grounds, a child wondering around will seem as if suddenly acquaintance with this creation, from the architectural section it seems as a natural continuation of the topography, as if the differentiation of it as a mound from the land is made with marks drawn as scratches above it.

In the northern one, two marked lines define the mound, the lower defines the starting boundary of the whole mound unite and also defines the end of the chute, and the higher one is the boundary of the top

standing arena, from it, a delayed area is formed and the sliding chute also starts, so each form has several simultaneous intentions. The chute itself is angular and opens up towards the base, in somewhat a land pouring out while it is looked as some natural made shape created from water overflow streams as a fossil into chutes shapes.

The second mound is located even more to the south at the end of the grounds and displaced slightly lower from the other. As the northern one is more planned the southern one is more emotional, it melts into the grass and two riffle wavelets chutes slides from the common standing arena.

Sporadically random and slightly breached circles, the two of them are placed in each mound, in a more planned and pre-intended manner, naturally along the land, as the northern one is placed higher and the southern one lower due to declining natural landscape towards the river, the breached part faces towards the river too. The circular shape has a gathering in the inwards intentions, and is the same as used in the first version.

### **3.2.3. Inter play of contours: version 3, version 4**

In early 1964, New York Times published a description of the grounds as a "fanciful wonderland for children to be carved and molded out of a slope in a riverside park".

No new structures could be seen on the landscape but the bounding together of all aspects of the scheme into a single unified composition of bold geometric shapes based on interrelated and interconnected parts was made, a wall of varying height tied up all the elements together and created an overall unity. There are several broad low stairways for climbing and jumping, and no dictated way to enter the site. Series of rooms for indoor playing were also designed inside the ground, their walls were pierced by light wells and their roof covered with grass.

All this process of uniting different entities into one event, linked by time and space was a breakthrough for the playground development, and was something unforeseen until then. The composition of dynamic parts in centrifugal ways and the creation of areas for specific human interactions, enhancing chances by its many angles of earth and angles intertwined, there are mounds pyramids with cutoff tops for climbing, exploring, sliding and for whatever the child felt like playing and also a place for nature in the shapes of shallow pool for water play.

It is the result of the work of the two merged into one grounds but each pulled to different poles, Kahn, to monumentality and interdependent but finite spaces and Noguchi, to sensory exploration of play. With no drastic changes in the playground's layout in its slow transformation to be a whole architecturally dominated structure, Noguchi complained that "the architecture is now in ascendancy over the playground. I had hoped it might be the other way around." Kahn in turn seemed dismayed by the overly particularized elements contributed by Noguchi.

#### **3.2.4. The incompleteness of Levy Memorial: version 5**

The fifth version of the scheme dates from the end of 1964, the project at this stage, extended from west 102nd to 103rd streets, appearing more rectilinear in its layout.

By this time a certain division in labor had been made between Kahn and Noguchi. Kahn handled the retaining wall and ramp, the subterranean rooms, the terraced amphitheater and play platform, while Noguchi mainly handled the play elements, which consisted of a small concrete climbing pyramid with a crawl tunnel, a split, stepped pyramid with a swing bar, a sand pit, a play court and a cylindrical ring mound cum water fountain. Noguchi believed that it is possible to give an infinite sense distance even to a small stage. More varied shapes,

circular holes opening in walls, geometric purity made by Kahn and more ideas for playing possibilities ideas were made by Noguchi.

The constructions themselves were made in hard materials. From concrete tunnels to slides, there were no moving play instruments and the children were the only ones moving. However, the structure that does not move was made to be changed by the player. Children play in a certain way. Each will make out a different play story to the fixed hard material, but as they play daily and as years go by marks will be left, worn out marks of hand grip, kicking foot prints that left holes. So with time the play instrument do not move physically, but it is being moved from the heart, as it will become the shape of the real play instrument.

Kahn thought of a variety of children who would play there:

"play must be free and uninhibited, spaces to be discovered with shapes not imitative of nature yet unrestrained in their making"<sup>38)</sup>

Abstraction as the backbone of creative play is the same as play and abstracted discovery.<sup>39)</sup> This playground had the potential to force its users to discover new activities, things that they had not been able to verbalize but that would emerge from confrontation with the structure: that kind of new discovery was intriguing.

This design can be concluded as the architects William Sharples and Christopher Sharples said: "impressed by the totality, abstraction and adaptability of the design." Abstraction to primary shapes that form the varieties of compositions are endless in the players' minds, as the adaptability to the steep topography, like if becoming one part of it, to the users who will be playing there throughout the day for a year in

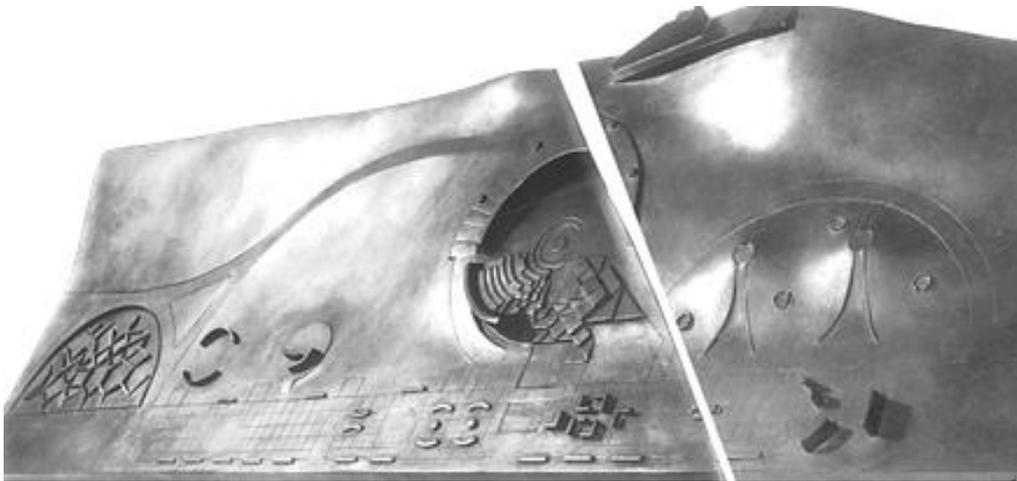
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38) Richard Saul Wurman (ed.), "What Will Be Has Always Been: The Words Of Louis I. Kahn", Rizzoli, 1986

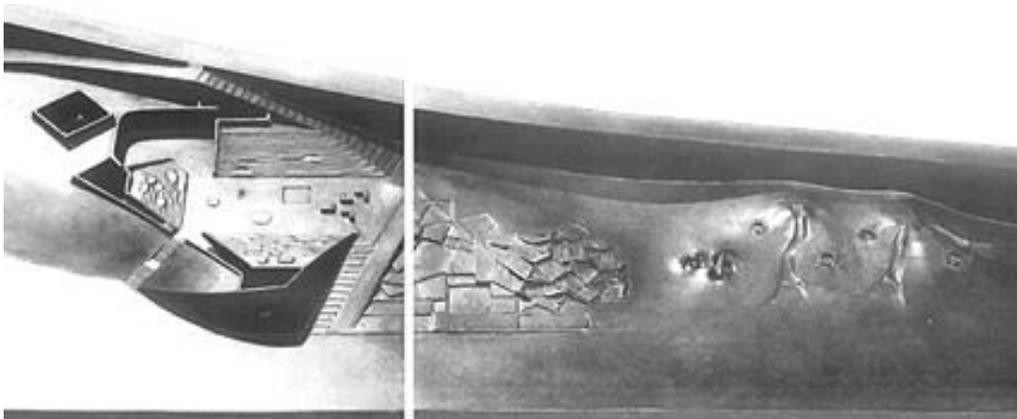
39) Susan G. Solomon, "American Playgrounds: Revitalizing Community Space", Upne, 2005, p.52

each time they will discover something new and will be exposed to a new playing surrounding.

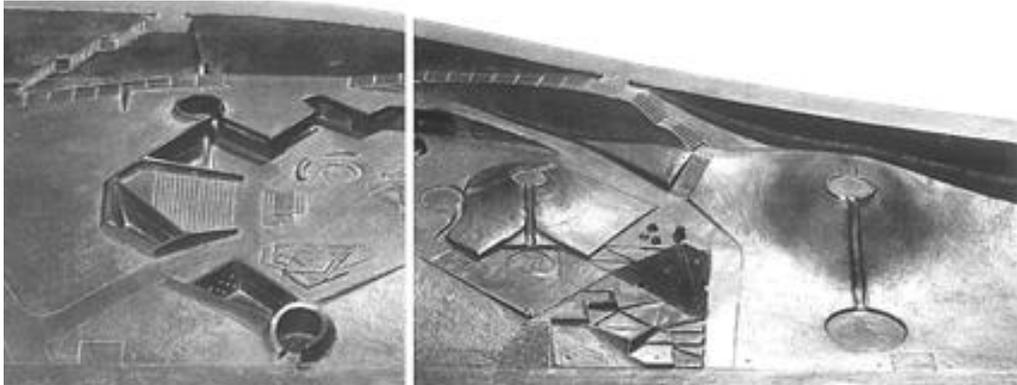
With finalizations of the fifth version the local opposition to the project had grown, for the playground would have taken part of the open space of Riverside Park, and by 1966 with the mayor's office changing due to elections and due to the new mayor's promise to not build this playground if elected, he had withdrawn the necessary support and the Levy Memorial Playground's proposal was doomed.



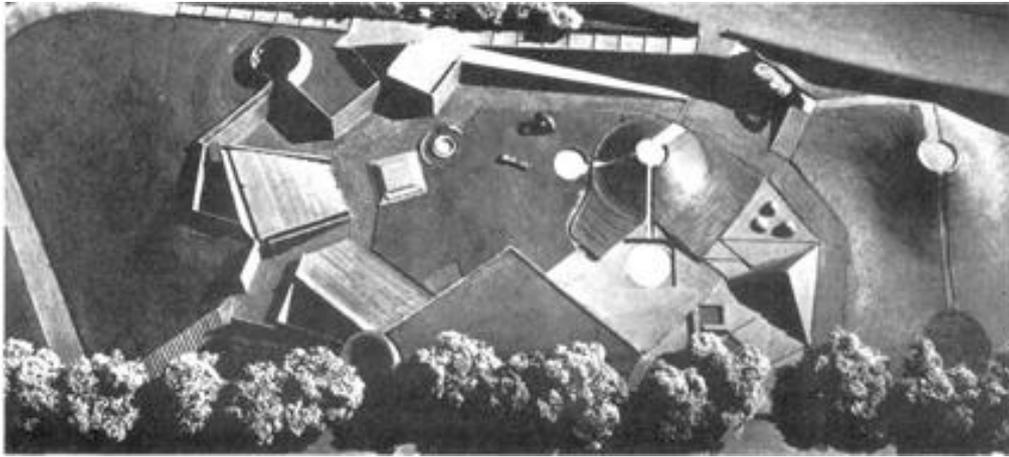
[Fig.16] Version 1



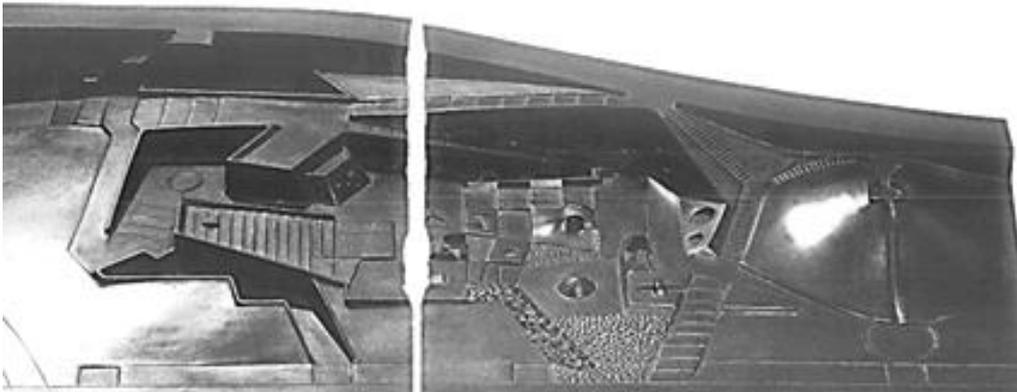
[Fig.17] Version 2



[Fig.18] Version 3



[Fig.19] Version 4



[Fig.20] Version 5



[Fig.21] Play Equipments: Theater, Play Element, Maze, Mound

### **(1) Theater version 5**

From the stepped open angled rectangular slop located in the northern perimeter, only one cote remains, its sittings facing the whole ground, a "stage" labeled platform is drawn just in its footsteps which also is the main plateau area. The multiplicity of meanings reached its highest with lowest materiality dedication for achieving simultaneity.

A careful looking in Kahn's freehand perspectives, his vision of the playing way is drawn. The drawing technique with charcoal on yellow paper eased freedom of thought flow to pass through the hand and these drawings are regarded as something tangible and alive, transforming feelings on the emphasis of the material. His perspective drawing from the eye level of the theater, viewing the given panorama tells the intended possibility of the theater usage.

### **The stairs**

In the final architectural plans dating from 1966, the "theater" is entitled as 'Climbing Theater Bank'. It is comprised of wide stairs surrounded by a one meter height fence which is also a constructive retaining wall in the bottom; the stairs seem to be about 25 centimeters high, in total 13 stairs of about 3.25 meters high in the last stair of the theater.

### **The stairs' bumps**

On several stairs, with an uneven gap between them some long solid bumps are attached to their edges. While occupying these stairs, they can be used as higher sitting places, tables when putting something upon

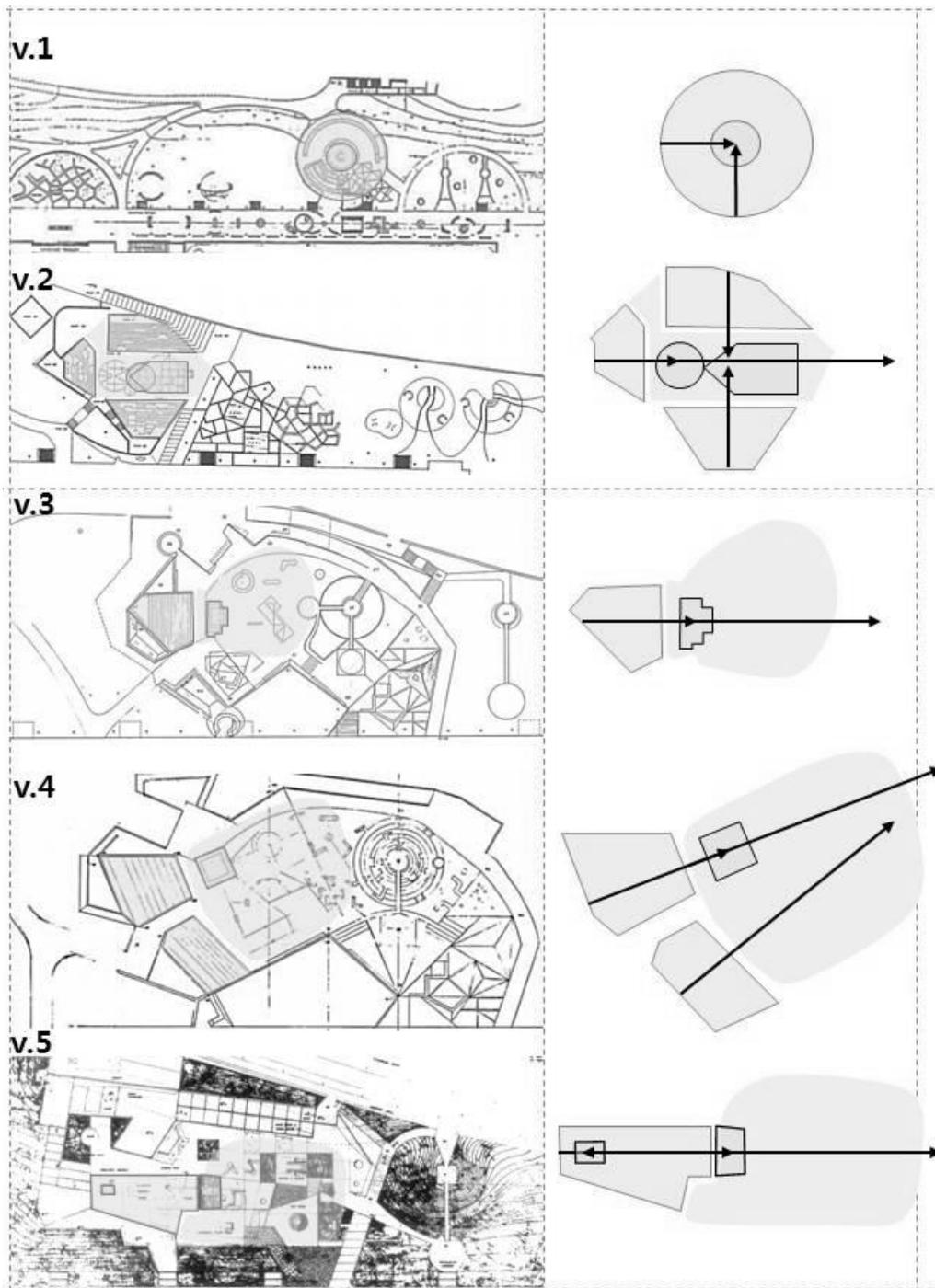
them or as pillows when lying down.

### **The top stair's bump**

On the top stair an 'L' shaped one meter height element is placed, its width covers a stair and a half and its height is about one meter. This element is a visual focal point of the highest place, an axis mundi of the entire playground while the rest of the playground will look at it from below. For challenged children it can be used as an extreme courage proving, sitting or standing on it, and for a very extroverted child, even serve as a stage with an audience to express himself. It can start just as a stage for an opinionated expressive child that will shout of course, as of being in the farthest stair. Usually a low voice would not be heard to the stage situated all in the bottom, whereas, here, the modern microphone is not needed, his sound will be echoed throughout the entire ground. Shouting from the crowd might lead to a response to the performer, who from the start is a more scenic personal would probably not be silent, he will respond, and thus a conversation will begin, participation of other children will sparkle, and who knows what will happen next.

### **The stage**

It is a one side open rectangle widened towards the open central space, on the plan a minor looking 'Stage' is written on a square differentiated from the rest of the playgrounds' level of about 0.5 meter, but in the perspective it is enhanced with multiple strong accurate straight lines. The separation of the stage definition is as clear as the blank area in the drawing, the single untouched paper, whereas the rest is filled with quick hand touches, naturally the eyes goes to that cornered angle of the stage. In the drawing there is a clear division of the end of the theater and its stage, in the breathing vision of this place such forced disconnection is imagined, but in the accurate objective model and



[Fig.22] Theater evolvement from version 1-5

drawings, the connecting transition of play elements is a soft and continuous flow. The stage continues in the same height of the stairs and suddenly is enforced by a stair double height ending and the entire grounds is seen as a stage.

## **(2) Mound version 5**

From Kahn's perspective drawing view from the theater, the mound is located in the farthest opposite side of the theater at the end of the grounds just before the plantations and the city's built masses.

As to follow the natural terrain slope descending towards the Hudson River, the stairs climbing up to the top circular gathering place is from the higher place, and sliding towards the river, a flattened safe playing platform area.

## **(3) Community of play**

Several children in the middle of playing are drawn on the mound, the division of their numbers show the significance of the division of action, a single child climbing through the steep slope towards the top, from the bending of the child's back and the higher body part's weight leaning towards and the emphasis with charcoal are on the hands and legs. On the top arena-like place, several children might be in different ages due to the height gap or just sitting there, as that place is designed as a circle inside a rectangle, and from Kahn's top view perspective drawing, a shadow is drawn, suggesting the height differences. This rectangle serves as a guard rail when crowded, which is a known phenomenon as usually the waiting in line is longer than the wanted to be used play element, as the sliding angle might frighten some children, or as some hesitant at first might be, or if a child changes his mind, is a place that should be large enough to accommodate all this behavioral uncertainties, as well as for children's safety, to prevent rolling down from the mound as a result of too much squeezing in. The relatively

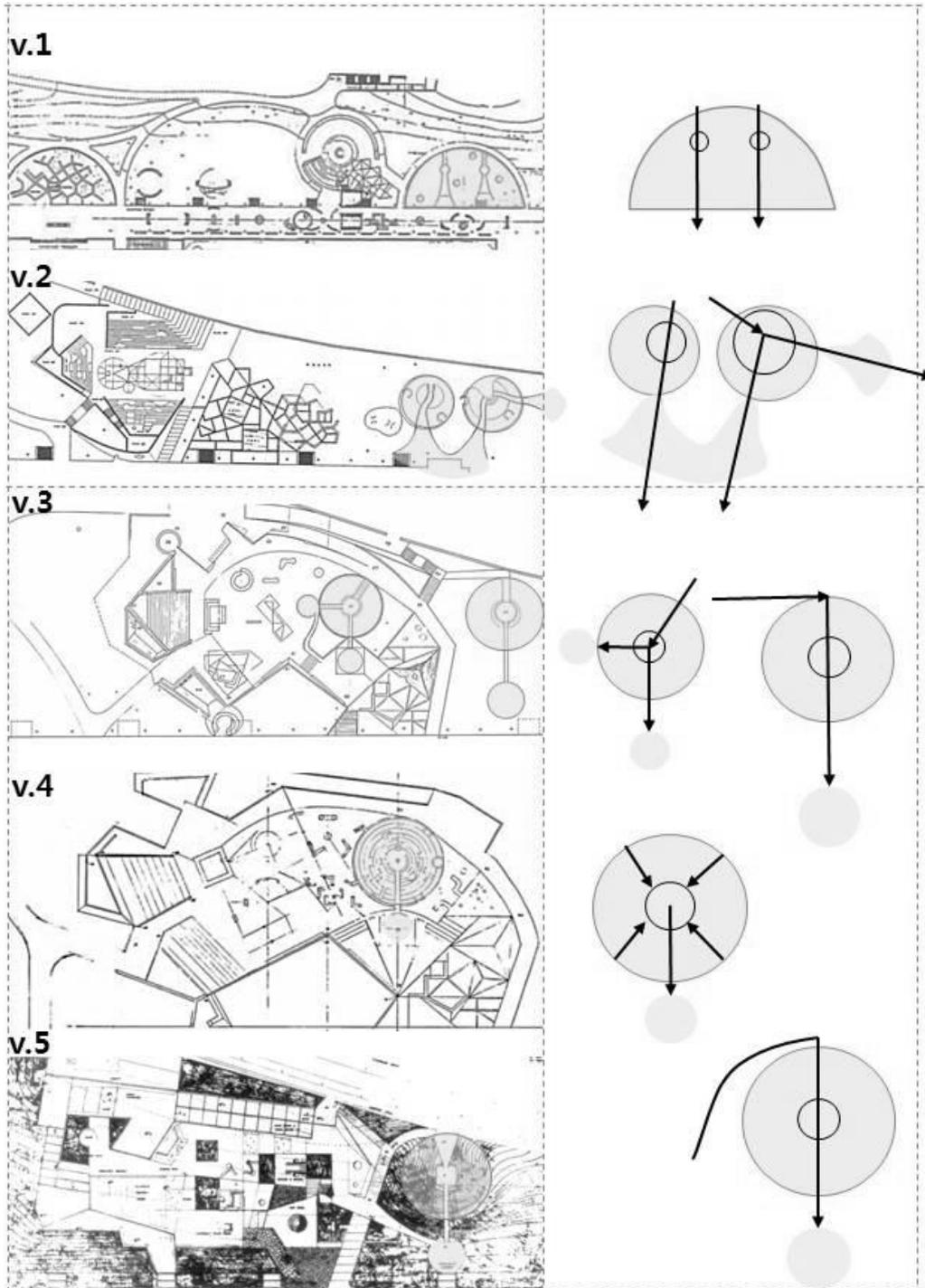
wide arena narrowing into the sliding chute might also be for the safe guidance controlling shape, or to be served for other users, if not by the children, then also for rain water viaduct during winter time, there is a multitude of uses for the same form. The largest number of children are drawn in the chute, drawn as if in the middle of the action itself, some are alone and some are sliding in pairs, sitting closely to one another, it might be that they just went down together with small gap in time, or they might actually be sliding when one is embracing the other with their legs.

A community of play is created when closeness is developed from a certain experience felt together during play; a room for the creation of physical intimacy should be possible and allowed, so that one will always be leading and the other protected, the same social skills that will be used in society as adults, are being developed here.

The end of the chute is a large circle at the base footsteps of the mound, light charcoal drawing traces indicates a certain soft material that covers the whole inside, its boundary is differentiated from the neighboring greenery since in winter times it can be a shallow rain pond which is large enough to engage children within it, or alongside its thresholds, making float on it ships made from paper origami.

#### **(4) Maze like mound**

On the northern side of the mound, a maze like concrete triangular net covers the upper layer of the ground, along with vegetation growing inside them, this low height maze is different from the first maze version. In the first version, the solid walls were made from concrete, relatively high for children, and in this final version it has been changed, as the void and solid parts inverted their purposes, as being an unusual and different one, it form the commonly known and expected, with the integration of change by time element. At start it can be used for children's play as they can walk over these narrow concrete



[Fig.23] Mound evolution from version 1-5

pavements, paying attention to not fall inside to the flower bed, it can be lead to a game of accuracy walking just inside the lines, while their everyday purpose is to be plantation beds. A clue for future development is drawn in the perspective view from the theater, the plants are wild and are not flat growing, their future growth, if not trimmed will keep rising and a maze made from plantation will grow whatsoever planted, while the only place that could not be covered will be those concrete beds. Thus the opposite maze from the first version will be created, the intended maze will not be a permanent and definite form from concrete from the beginning, but a progressive and changeable maze created out of the natural environment, which is time parameter dependent, very open to constant change that might occur.

### **Play activities: from contour to interplay of contours**

#### **Diversities of users**

In (the previously quoted) the conversation with Karl Lynn Kahn, the nature of / forces within children is described in this order: destroying all - intimacy - spontaneity - participation, and thus, the structure he made is made to be incomplete for play.

In this conversation, Kahn starts from 'the nature of children'; separating the words and placing them in talk order shown above, but thinking of the order of the activities occurring in a progressive time line of a playing child: spontaneity - participation - intimacy - destroying.

However, while talking, Kahn said those words inversely; it is shown that he is an architect in his soul and a practical one. Therefore, he thinks about the final result first, saying first the closest to heart, building a concrete design:

"The design concept was to create a familiar playground landscape for all age range; children, parents, grandparents, that functions around the clock;

supportive nursery school, and that is usable all year long; the area in front of nursery is a sun trap for winter and a fountain and water area for summer."<sup>40)</sup>

The designed play's elements consider all age range and consider what form will be extracted the most out of them, thus, the playground has for each age range different play equipment that are built according to their own and their guardians' specific needs.

For the soft age, a protective surrounding with soft natural material, a sand box. For children, a vast and versified senses intriguing play equipment. For adolescents, energy consuming social activities, swimming and skating. For parents, shadowed sitting chat places while keeping an eye on the kids. For seniors, adequate muscle exercising and walking paths with resting areas.

And furthermore, what the man doesn't complete time does. These flows, creating an abstract but dual and even plural openness enables that same thing to be relevant through all year long and passing time will enable fulfillment by nature's order.

In addition to specific considerations for each age groups play needs, a sporadic distribution and gathering together the play elements was created in order to trigger spontaneous play:

"I didn't speak in terms of architecture. He didn't speak in terms of sculpture. Both of us felt the building as a contour, not one contour but an interplay of contours so folding and so harboring as to make, by such a desire, no claim to architecture, no claim to sculpture."<sup>41)</sup>

As Kahn said, the first importance was to create a contour, which is the boundary of a certain play around certain play elements, then to create an interplay of contours, which is making those boundaries of activities

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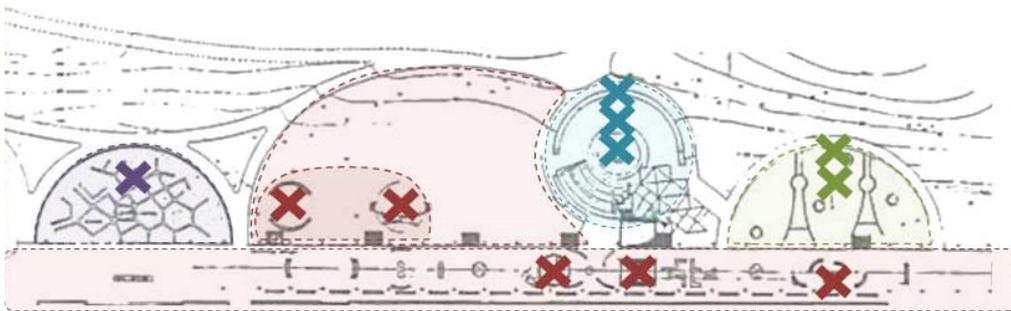
40) "Play Mountain Isamu Noguchi & Louis I. Kahn", Watari-Um, The Watari Museum of Contemporary Art, 1996, p.7

41) Heinz Ronner, Sharad Jhaveri, "Louis I. Kahn Complete work 1935-1974", Birkhauser, 1987, page 187

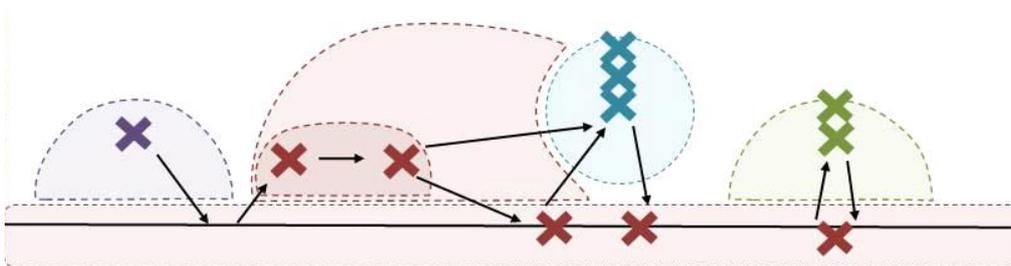
to overlap each other. This makes the immediate distance from one play element to another very short so it will lead to multiple play triggers that will expose the child to be more curious about what happens next to him. Folding is piling up those triggers to be formed from more than one playing method. A single element provides several playing methods, and harboring is the need to have a strong base point, an element which is strong enough to stand on its own, be a sufficient element to attract and occupy children on play made by it, and creating a centrifugal point with strong attraction, something that makes possible centralization, gathering of play in order to create intimacy and friendship among the children.

### **Deferment play elements**

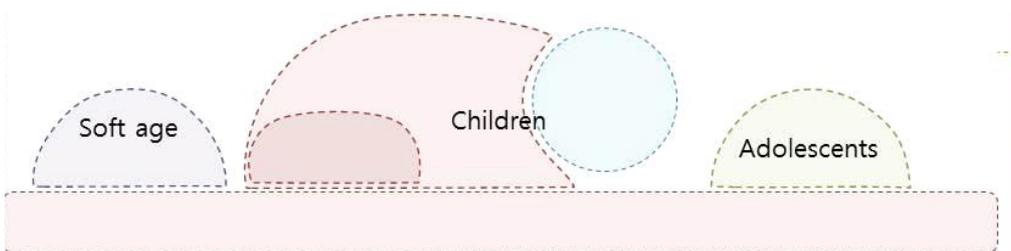
Kahn said that it is the nature of children who look at everything as if they were going to destroy it. This is not destroying on purpose. It is the nature of a child learning from experimenting. While playing by putting force upon something the child checks the limits in all aspects, trying to maximize his personal limits in activities, like climbing will leave kicking marks on the play element and with time passing by, more children will kick the same place and deterioration of the material will occur. As from the start the whole playground's play structures are made differently for each stage of the child's growth, the child does not only experience each structure in the grounds and tries them all, but the shape of the structure itself changes as many children leave their usage marks on them.



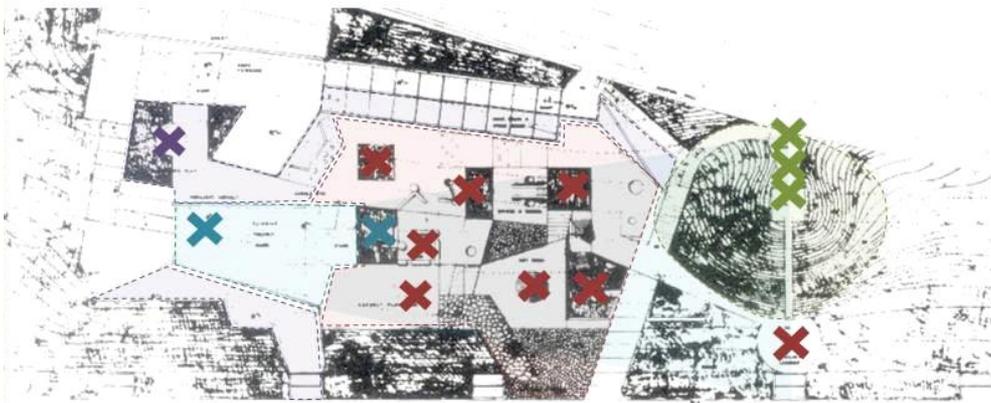
[Fig.24] Version 1: Play Elements



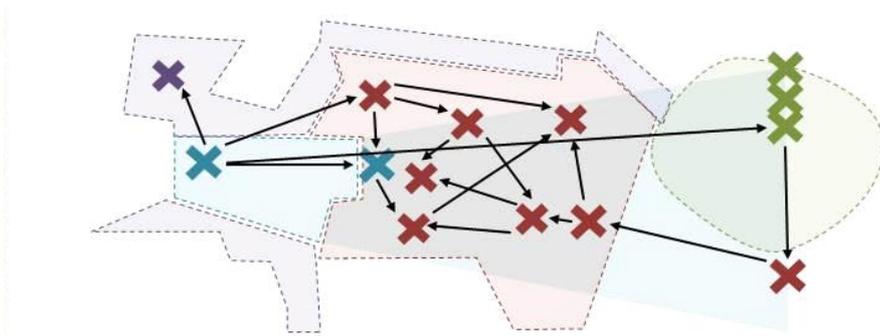
[Fig.25] Version 1: Play Elements' interactivity



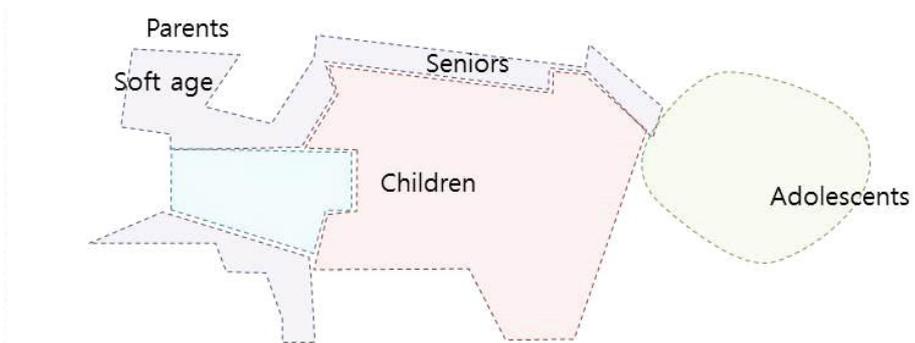
[Fig.26] Version 1: Play Elements' users



[Fig.27] Version 5: Play Elements



[Fig.28] Version 5: Play Elements' interactivity



[Fig.29] Version 5 Play Elements' user specific

### **3.2.5. Summary**

Each one of the four play elements; Theater, Maze, Play Elements and Mound have undergone through the first version to the last changes in their shapes along with changes in their play characters accordingly. In addition to each elements' development, a bigger meaning which holds this entire grounds together is also emphasized by each element;

A theater in order to enhance the multiplicity of activities,

A maze in order to enhance the landscape,

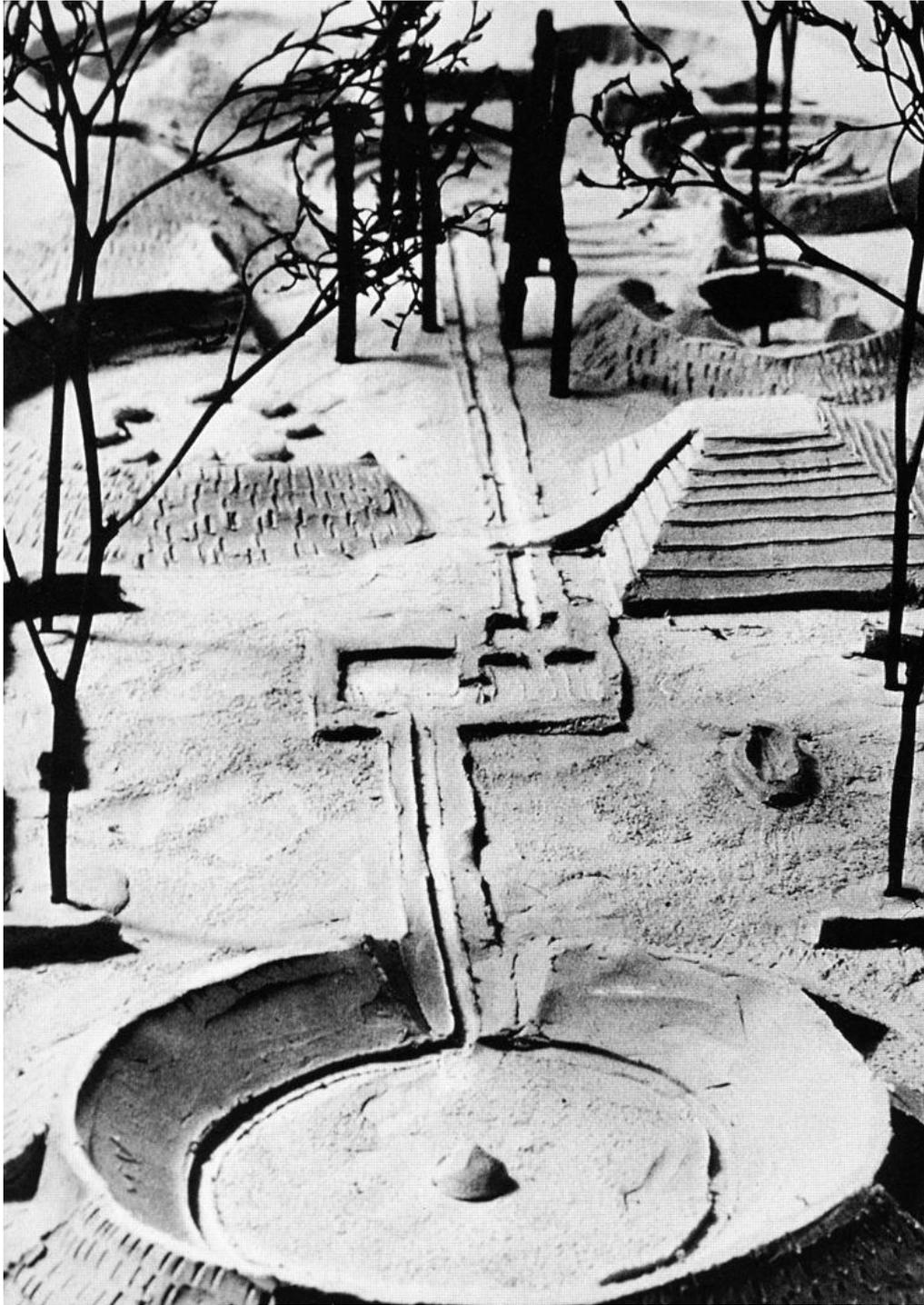
Play elements in order to enhance the spontaneity of play distribution and calling to it,

A mound in order to enhance the boundary of the grounds.

Noguchi's life long search in developing play equipment originated in his belief that the standard play equipment of his time did not serve their function, all the 'S'es' as were called; Swing, See Saw, Slide Sprinkle that were systematically implanted in every territory and defined as a play ground, were meant to be a pre-build equipment that originated in their real reflection in the past, all are elements that look similar to the elements that children used to play with in the past, when there was still not a defined play ground the street was the play space of them, they play with and physical thing that was available for them that was left in the city for them, but as the importance of the safety of children raised and the need to create a safe place for them to play, a contoured boundary for safely and protection reason. The same familiar street scape elements that served for children play were translated in to equipment that would replace the allegedly unsafe for children; they were supposed to be the reflection of their everyday play environment, the street. The big misjudgment happen when those equipment were seen as individual singularity then their conceptuality was taken out, on the act itself as sliding, hanging, climbing was left, and from those activities, the S'es were created. a child likes to slide on slopes so an equipment that will

serve for slide, the slide was design for it, and as for being created solely form the need to provide an answer for the sliding activity, the commonly known slide only enabled sliding, climbing up and sliding down and repetition to same thing over and over again. the same activity in loop probably created boredom to children, as their made from nature, their curious spontaneous spirit was made to be confronted with contradiction, they were presented with a sliding equipment that could be only used for sliding, some would have definitely tried to do other activities with the slid other than sliding, trying to slid in the opposite way, trying to climb up from the unintended side, but as those equipment were only made with a single purpose orientation it failed to answer the so called un-expected behavior of the child, which was in no way un-expected but a result of the adult who design it without thinking about the complexity of a child play, the child only acted according to his nature. The S'es not only narrowed the activity called sliding to its technicality, it eventually narrowed the child's behavior. Noguchi realizing this fact fierce-fully tried to change the popular steam flow to this direction so causally placing few S'es equipment and calling it a play ground, by re-thinking about the child's true nature of playing and inventing play equipment that truly was truly one uniting part with the child's play and an adequate replacement of the street that was the place for the child to see the world and get inspired from, to designing equipment, sculpture and landscapes that provided all the inspirations within itself.

Kahn's architecture of connection is about information being pre-given and already presented. All is transparent, all is available. The availability allows the individual to be conscious of the existing connections, and to choose from them.

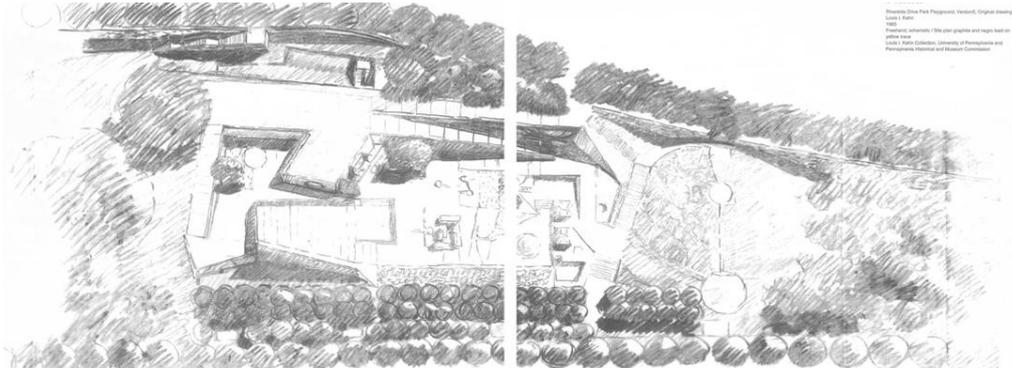


[Fig.30] Clay Model Levy Memorial Playground

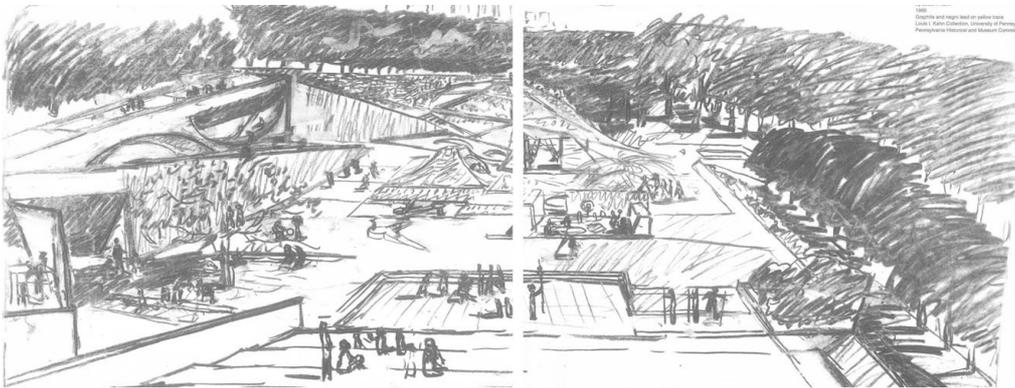
### **3.2.6. Miniscenarios**

By observing the freehand perspective drawing of Levy playground's final version, Kahn's envisioned scenario of play can be foreseen. It is the user's narrative taxonomy of the given dynamic conditions.

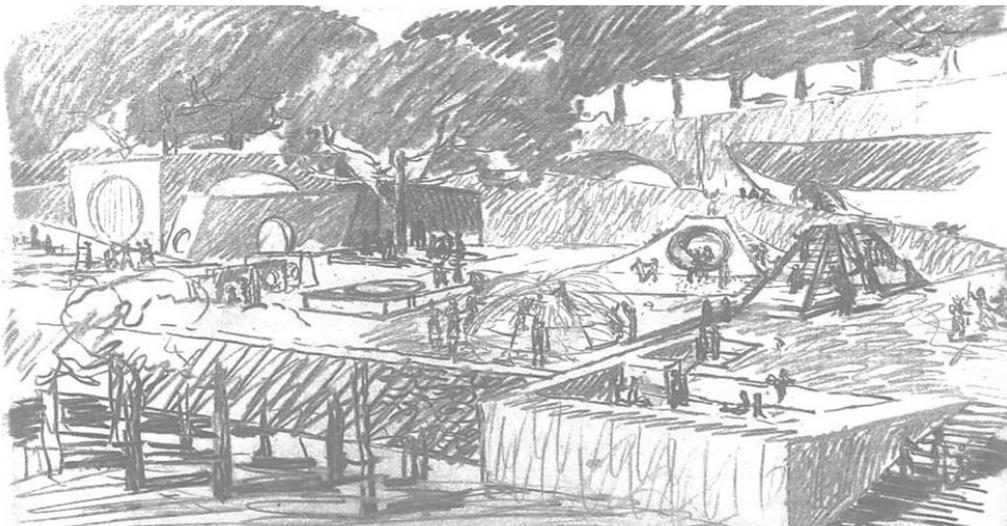
Standing by the highest peak of the site, he can observe in a single glance all the sporadically outspread play elements situated under his eyes. He is surrounded by all these structures that he mostly experienced in the past. Just in front in the shallow area, he sees small kids playing as he did just few years back, if he is bored then he will go over their corner in order to flaunt and to do something that the kids are not yet capable of, then the small kids will be amazed and hurray him, he will develop abilities to teach and help younger. If he seeks for adventure in the grown-up world, he will go the teens in the far peripheral corner, watching them as they skate down the mound, doing unbelievable tricks in the air. If he is lucky enough he will be able to see a pretty girl and some nothing-guy suddenly disappear into one of the niches in the mound, suddenly thrilled to find out what they are doing but he does not have the courage to hide behind their walls and eavesdrop, just wait, someday.. He will say to himself, and just like that challenged himself to be a faster runner in the future, he will need to be faster so that if he is exposed eavesdropping he won't be caught. Then looking at the teens again, they are better than him, he will look at how they are doing it and naturally his physical observation distance will diminish in time and he will be joined and thought by them if he learns to be tentative, now he learns what is to be thought by someone who is elder but who is not a school teacher.



[Fig.31] Perspective view from bird eye



[Fig.32] Perspective view from theater



[Fig.33] Perspective view from river bank area upper

## **Chapter 4.**

### **Indeterminacy through Operative Landscape**

#### **4.1. Connectivity in the current city**

4.1.1. The cause of flow - inspiration

4.1.2. Dissolution of boundaries

#### **4.2. Flexibility in human behavior and activity**

4.2.1. The behavioral perspective

4.2.2. The flexibility of human activity

4.2.3. The choice and intersection of activity

#### **4.3. Indeterminacy through programmed landscape**

4.3.1. Program - complexity, interdependency and openness

4.3.2. The topology of landscape and the infra-structure within it

In order to understand the notion of Incompleteness, and furthermore to reach to the understanding of the concept of indeterminacy, it is first necessary to analyse the city; the current state of the urban area in which we evolve and the way connectivity is produced within it. However, by examining the metropolis and the patterns according to which the multiplicity of connections make boundaries disappear, it appears that the concept of indeterminacy finds its origin in the behavior of the human being. The action of 'play' is derived from the basic factuality that the mankind can be defined as Homo Ludens, the 'playing Man'. Since the essence of Homo Ludens is to play, naturally there is the 'playground', the space, the ground where the play takes place and how it is organized. By analysing the playground and the way homo

Ludens behaves, the playground where Homo Ludens plays, appears to be in reality a scaled-down city, a landscape site. The contemporary architecture indeed takes into deep consideration the conduct of man, and consequently, urban areas such as streets or parks are designed in a way to conform to the needs of men, of the playing man. The design itself is incomplete in order to execute the flexible behavioral patterns of the individual, and the space where it occurs, is the landscape. The characteristics of a landscape can be both found in the playground, as well as in the urban area structuration. The latter needs a program, which is thought and made by the designers, the architects. Based on the behavioral perspective and the intersection of activities of the human individual, architects reach towards a programmed landscape that is complex, interdependent and open. The surface, the land, is what supports the program. It is the notion of land in land, of operative landscape. In the contemporary architecture, the 'indetermined' organization of the landscape in fact is used as a planning tool for the program. It is through 'indetermined' elements that the connectivity and distribution of space is made, and through which the programmed landscape site is realized. It is therefore inevitable to link Kahn's concept of Incompleteness with the contemporary notion of indeterminacy.

#### **4.1. Connectivity in the current city**

The city is now a place of places. Beyond the metropolis, it is now a metapolis, a place where numerous urban models coexist,

".. a complex system of simultaneous relationships and events .. a spectrum of cities and of cities within the city."<sup>42)</sup>

The city can no longer be defined on a mere physical or geographical

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42) "The Metapolis Dictionary of Advanced Architecture", Actar, 2003, p. 431.

scale; it is a multi-layered structure, a multifaceted dynamic and fluctuating framework of networks. The city can yet be divided into smaller combinations, smaller elements.

The street is a space of flow in the urban city enabling connection and movement of all living beings. It is a deferred space where on each moment, some activity begins and ends. The street is the original play space from the beginning since what happens in the street is the reflection of the human nature. This nature of men is interpreted as the Homo Ludens, regarding its deferred characteristics of temporality both in time and space. In time, since an activity has a beginning and an end, but is not definable, and in space, since anyplace can be the starting and ending point of an activity. The very same street that inspires play, also inspires all the other vast and diverse activities that the individual can do in the street, since the strength that drives the individual to act lies in his nature. Hence, by observing the activities of men in the contemporary urban street, it is possible to see the reflection of men. The Homo Ludens nature is the generating force of the spontaneous, complex and unpredictable behavior of the human being. It is shown most clearly in children's behavior and in their play. The play space that Kahn and Noguchi have designed, reveals that whether it is on a smaller scale as with play equipment in a play space, or in a larger landscape scale, as in the street, in a coffee shop, in a park, in the office, or in any other facility in the city, the activity of the individual in fact follows the same patterns of behavior. It will lead to the conclusion that the playground is the epitome of the city.

### **The street as play equipment**

A street is a play space for children. The street is the space where play takes place, and the design elements like the surrounding buildings, openings, doors, windows, and balconies, enable more connections to be created, as they are the continuation of the play space. The street also

provides the inspiration for play, a flat terrain inspires children to play by themselves, to use their own body as play equipment, if there is no stone to throw then a child will be thrown, whatever is present and situated in the street is utilized for play, stairs are to sit on and to observe a play, a fence is to ride on, columns are to climb on and a construction site provides the toys to be played with. Each element which is part of the everyday life is utilized as something to be played with, a child sees and uses the given urban streetscape as something reachable, immediate, closed by as his playing space. The street as a natural play space has no boundaries, not in its length as a street is present any place a man lives, being the outside of a building, and has no boundaries in the limitation of the things that inspire for play, as that's the children's nature.

Kahn and Noguchi designed Levy play ground as that original play space, the street with no boundaries, as a space that inspires play just as it did in the streets once before the creation of the S'es playgrounds.

In Levy playground Kahn's landscape is what Bruegel illustrated as the streetscape which was the original space for play, and Noguchi's play equipment is what Bruegel illustrated as what is just being present in the street that was used for playing.

#### **4.1.1. The cause of flow - inspiration**

##### **A space of flow**

In order to make the connections the most accessible possible, and allow play to be one continuous flow of play, a space of flow is created. When the nature composing the space is constant connectivity caused by movements, then the constant non-stop movement is seen from distance as a single form of flow. Physical obstacles should not exist in order to enable flowing on a floor, and therefore, the final version of the playground not only encircles a middle playing field, but the surrounding is a continuation of the ground in a different leveled terrain, which is

created from the natural multi-leveled terrain, and the play element of the maze being extroverted into a landscape.

Another concrete example of a space of flow would be when a photography is taken with an open lens, with a strong light exposure for a long period of time. The snap shot then shows a flow of bright and colorful light drawn in one stream of fluid movement.

### **Intuition for detecting the right place for the right activity**

Everything is seen and being utilized in a different manner from the initially intended purpose, it is a rather direct and simplified usage of the activity, like a wide open dictionary. The ground plan is the plan where the connection from the outside to the inside can be seen, the flow is supposed to be created and the ground is the richest floor. And there is, as the directness in reach, the direct keeping and directing of the outside flow towards the inside, physical directness in the most short distance, later due to acknowledgment of this ground floor there are attempts to bring the street in a continuous flow that creates a whole building, as trying to bring the street inside, wanting to create a building which is the continuation of the street. The outside and the inside, the exterior and the interior are linked; they resume in one single flow of movement, of direction and create a whole with connection.

In Kahn's writings, this architecture of connection is referred as a viaduct that reaches to all and to each of the existing; it is also compared to the architecture of landscape created through still visualization of the captured movements.

"The new world is characterized by the need to manage complexity. Complexity is the very stuff of today's world. The tool for handling complexity is organization. But our concepts of organization belong to much less complex old world not to the much more complex today's world. Still less are they adequate to deal with the next epoch of complexification - in a world of explosive change."<sup>43)</sup>



[Fig.36] Tokyo 1999

The present world is so complex that its organization is needed through new meanings of connectivity. From the fast flow and changes, the created things tend to be introverted and have no connectivities between them, they are being built as independent atoms, and due to the fast changing things as whole or partial is replaced too fast, just as a part that is being replaced from the urban fabric, but the problem is that this fabric only seems to hold as a united net, but they are only particles that got changed too many times that there is no correlation between them. Chora tries to build those connectivities created in the urban landscape, as it deals with the terrain itself, whether they are building a new center in middle of a neighborhood, or in regional scales as in 38 cities in Ireland. The connectivity is done through creating new communities with a communal sense of purpose and duty, using this

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43) Platform for Change: A message from Stafford Beer John Wiley & Sons, London 1975, p.380

nature of men because they believe that what created the city in its current form is what shaped the city to look like that from the beginning of its curation:

"This theme, stated at the beginning of 'Urban Flotsam', comes back in practically all projects, sometimes through the physical substance of matter, ... or through the less physical materiality of human activities and urban processes, collective emotions, information exchange. Parallel to that theme runs the assumption that architectural artefacts are Taschenwelts, small worlds reflecting larger orders, and that the same Taschenwelt as a concept lies at the basis of the idea of the Urban Gallery, a planning methodology connected to the proposed practice of Urban Curation."<sup>44)</sup>

#### **4.1.2. Dissolution of boundaries**

For each architect, as for Kahn, the process of creating connectivity and the implemented methods within a landscape is expressed in a very diverse way. Depending on the character of the envelope, whether it is somewhere in-between solid, opaque or transparent, the degree of connectivity can vary. Through connectivity, the limits of landscape or of smaller elements residing within the site or the urban area itself, the limits are blurred, and the boundaries made less concrete. Connections create a complex system of network that allows the environment to be literally integrated in the urbanscape.

According to Chora, the landscape is considered as indetermined, mainly regarding the fast flow, movement and the rapid change of information and the moving environment. The indetermined landscape is a planning tool to create connections between the local site and the inhabitants living in that area. When analysing the Homerton Pavilion, the site specific quality resides in the fact that the architects create a

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44) Herausgegeben Von (Edited), "Chora: Raoul Bunschoten, From Matter To Metaspace: Cave, Ground, Horizon, Wind", SpringerWienNewYork, 2005, p.4

connection between the designed Pavilion and the indeterminant site in which it is built. The indetemined flow was visualized through the dynamic shape of the Pavilion, and the use of fiber cement, 'a new kind of collapsible mould.' The aim was to come out with a site specific solution, to solve the local existing problems by being site specific - in this case, the site did not function as a public open space in the master plan zoning, and hence, did not correspond to the label of public domain.

".. there is no platform for communication between them and a landscape of local organizations and individuals."<sup>45)</sup>

The Pavilion itself is a defined segment of the site, and the site itself is a landscape of flow, movement and change. It was designed specifically for this site, in order to offer concrete answers to the local problems. It then becomes a specific place, creating a platform between the site and the people living around, and making a base foundation for the connectivity in that landscape. It is a platform for changing events, actions, meetings, all different types of connectivity between the inhabitants and their surrounding environment.

"The pavilion becomes a connective device, an attractor of actions."<sup>46)</sup>

Since it was designed in an indetermined site, visualizing the indeterminant character as a planning tool, and was created from the flow that is in reality a constant flow of change, therefore, the result of the design itself is indetermined and temporal. Moreover, that structure being a temporary design, following its indetermined quality, it was built to trigger connectivities within the site. The creation of events and actions was meant to allow people to behave as a community and

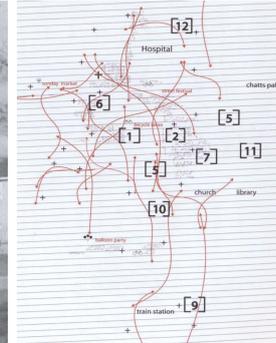
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45) Herausgegeben Von (Edited), "Chora: Raoul Bunschoten, From Matter To Metaspace: Cave, Ground, Horizon, Wind", SpringerWienNewYork, 2005, p.42

46) Ibid, p.44



[Fig.37] London, Homerton Pavillion



[Fig.38] London, Homerton X Loom

furthermore sustain that form even after the temporary structure itself disappears.

In the designing process of the Fondation Cartier pour l'Art Contemporain, according to Jean Nouvel, the notion of 'indetermined' landscape is a planning tool that creates connection between the landscape of the site where the building is situated, and the building itself. The area where the building is situated is an extremely dense and complex urban zone, with multiple cultural areas in the surroundings. The building is composed with several layers of walls. The first wall, the closest wall to the street, connects the urban area of the surrounding with the public cultural facility that is the Fondation Cartier. There are layers enveloping the building - the first one is a barrier between the site and the street, the second layer is a green volume that separates the first wall and the building itself. And lastly the building itself is a structure that is defined between the wall facing the green volume and another wall that envelops the building itself. The last wall situated at the farthest point from the street, is facing an inner garden situated within the site. The building is a bloc designed to be wrapped in several layers of different types of walls that actually make the 'indetermined' site to be connected with the surrounding dense urban area.

The green volume creates suspension. It is connected to the public, by

allowing everyone their own access. Boundaries are not fixed or limited. The ground floor has a sliding glass wall capable to attenuate flow; the impact is softened. fast-paced. The goal of this design was to create an area of openness inside a dense and complex city. This was made through the appropriation of the urbanscape. The nature was used as a supplementary layer as a green landscape volume, substituting a the use of a sustainable green wall.

The 'indetermined' landscape is fast, flowing and continuous, but this building slows down this movement and is utilized as a tool to create and control the connections between the landscape and the building. The very first contact between the building and the landscape is made through the building's envelope. This contact is suspended through the gradation of the envelope, by delimitation of the urban scape volume.

The information of the landscape is reflected through the glass structure that is the first layer of wall in the closest area to the street. The information of the surrounding landscape is suspended, delayed, as the green volume created by first layer of the glass wall and the green volume behind it, between the street and the building itself. The changing and rapid flow of information of the surrounding urban landscape is controlled, is suspended and slowed down, made smoother and softer and therefore does not abruptly reaches the chore building. The observers that are inside the building feel more secureness, hence the buffer zone creates a detachment from the dense and busy urban surrounding with the green volume within the first layer of glass wall. The structure itself creates a suspension of time and space and gives the impression of buffering, of distance. However at the same time, the design can be also used to let in the flow of the surrounding into the structure, by simply changing the emplacement of the glass doors. The boundaries that were used to suspend can on the contrary dissolve themselves and make one whole entity with the surrounding landscape.



[Fig.39] Paris, Fondation Cartier

## **4.2. Flexibility in human behavior and activity**

The 'Playing Man' has a very specific way of behaving and evolving in a certain given space, due to its essence of 'Ludens'. This behavioral perspective of the flexible and spontaneous individual will be analysed through different architectural spaces and designs.

### **4.2.1. The behavioral perspective**

Along with Homo Faber, the making and creating man, and Homo Cogitans, the thinking man, there is the Homo Ludens, the playing man, a third function attributed to the human individual, just as important as the act of making and reasoning. The term and the concept itself of Homo Ludens, the 'Playing Man' was first mentioned by Johan Huizinga. Homo Ludens, or 'Man the Player' is defining the act of playing as a primary essence of the human nature. Homo Ludens is the protagonist that 'plays' in the conceptual space where the 'play' occurs. Huizinga even states in his book "Homo Ludens, a study of the play element in culture" that:

"For many years the conviction has grown upon me that civilization arises and unfolds in and as play."<sup>47)</sup>

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47) Johan Huizinga, Homo Ludens: a study of the play element in culture, Beacon, 1938, p.7

Play is an activity and it is rather linked with 'will' rather than 'instinct', it is a voluntary activity.

"First and foremost, then, all play is a voluntary activity. Play to order is no longer play: it could at best be but a forcible imitation of it. By this quality of freedom alone, play marks itself off from the course of the natural process."<sup>48)</sup>

Playing is Freedom, it can be deferred in time and space and it is a self-limiting behavior. Playing creates a community - play is 'folded' in space. It has a noteworthy social function, since the Play itself is a special form of activity, it is a social construction.

"It is a significant function - that is to say, there is some sense to it. In play there is something "at play" which transcends the immediate needs of life and imparts meaning to the action. All play means something. If we call the active principle that makes up the essence of play, "instinct", we explain nothing; if we call it "mind" or "will" we say too much."<sup>49)</sup>

### **The street as play space**

The photography illustrates the street-scape of an urban city as a continuous street where scenes of passengers can be observed in the background. The Exhibition Road in London is a street where temporary exhibitions can be held. It is a shared space that was created in order to facilitate the pedestrian access and to increase public interest in the museum district. By linking important institutions such as museums, parks and Gardens, this street enables a constant continuation of flow, and creates a movement in this district. People walk around, enjoy the outdoor exhibitions such as installation art, and go by from institution to another.

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48) Johan Huizinga, *Homo Ludens: a study of the play element in culture*, Beacon, 1938, p.7

49) *Ibid*, p.1



[Fig.34] London, Exhibition Road

Kahn also considered the streets as the most natural play space. He once described a memory from his childhood, remembering that when he was a child he threw out a ball from the first floor window directly to the street, and he never went to a space defined only for play. Throwing a ball throughout the window is just like passing it to the streets, so the play flow is immediate and continuous. For children, the idea that there should be a separation of spaces is not rational, since play itself is not a rational act.

### **Playing on site - grouping as a community with a common goal**

Being part of a group enraptures the individual's personal opinion, and the private will blur and vanish among it or will be maximized to extreme radicality. This is the group mentality of children, its tendencies to be flexible and not firm, easy to be manipulated by any stronger force. The autobiography written by St. Augustine is the first known up to date scripts with detailed chronological personal experience described from infancy to adulthood, this text is mainly important as it spills light

upon the process of one's becoming to acknowledge and confess of his past actions; described to be sinful, being possessed by ignorance and unknowing the right and its choosing in the path of redemption through Christianity. Apart from this self-enlightenment the first two books about his childhood shows how a softness of age and experience is being influenced:

"Nor cared I to enjoy what I stole, but joyed in the theft and sin itself. A pear tree there was near our vineyard, laden with fruit, tempting neither for colour nor taste. To shake and rob this, some lewd young fellows of us went, late one night (having according to our pestilent custom prolonged our sports in the streets till the), and took huge loads, not for our eating, but fling to very hogs, having only tasted them. .. Human friendship also is endeared with a sweet tie, by reason of unity formed of many souls. upon occasion of all these, and the like, is sin committed, while through an immoderate inclination towards these good of the lowest order, the better and higher are forsaken, ..  
"50)

From the interaction between children a reason is needed for friendships to be created, and therefore the level of intimacy and of closeness is the result of what link or bond made those children get close at the beginning. Out from the momentum of wanting to taste the forbidden fruit which was a common wish of all the children who were present at that time, a common excitement was created, a feeling that could be felt alike by all and thus understood as a general wishing. This feeling was felt in each child's soul enhanced their unity as a group with a single wish, a strong group that by uniting them all more power to feasible was made possible, just first trigger from some low voice was needed to swipe this whole to commit anything, being part of a group gives sudden confidence that being alone could not be felt as St. Augustine wrote:

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50) Saint Augustinus, "The Confessions of St. Augustine", book II, p.15

"Yet alone I had not done it: such was I then, I remember, alone I had never done it. I loved then in it also the company of the accomplices, with whom I did it? I did not then loved nothing else but the theft, yet rather I did love nothing else... for had I then loved the pears I stole, and wished to enjoy them, I might have done it alone, had the bare commission of the theft sufficed to attain my pleasure."<sup>51)</sup>

He mentions that his behavior was different when being alone or part of a group. The actions that were known to him to be forbidden and unethical as stealing was never done by him alone, but being part of a group gave him the sense of belonging, of being part of something which is bigger than the oneself. This communal feeling gave the illusion that when the all was in favour of a greater goal its legibility is supposedly forgotten as it became mingled among a greater sensation of communality.

### **Interaction between groups created from play movements**

Each play has a flexible territorial area that changes along the play as it goes on and moves on the terrain, children's play is not a fixed and still situation but develops and moves while its boundaries overlaps with other plays. Each play has a unique and a onetime boundary, the outer contour could be illustrated as an elastic rope in extension which encircles all the play participants and as they move along the grounds the momentary contour constantly changes.

According to the type of play the speed of movement and change are dependent and the space situation and occupancy are also dependent on the number of participants, the equipment played along and the various activities that emerged from that specific engagement, time and space are both dependent on specific situations created from singular circumstances, temporal activities which share only the common goal of enjoyment,

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51) Saint Augustinus, "The Confessions of St. Augustine", book II, p.17

there is no responsibility, commitment and pressure about the community created by play since it is from pure willingness, all activities can be suspended and re-continued at any point, the play can be deferred and suspended timely and spatially.

In a brief view of 'Children's Games' the gathering compositions of play are sporadically dispatched masses with empty transitional area for movements in between them, and the most eminent natural play groups are the three teams linked by a common momentum of being thrown away, starting from the center and bending towards the construction site in the bottom-right corner.

The upper group is composed of three children bending over and three jumping over them directing towards the wooden beam. This game's regulation is that each child jumps over all the bending children and then goes to the farthest end of the benders and bends in the same way while at the same time the first bender stands still and starts jumping as described above. It is a loop that repeats itself and with each repeat it advances physically further each time, the playing children's bodies are the game itself and the bodies are in movement creating by themselves a flow directed arbitrary with the group's will.

As the game continues and physically moves further and changes places, it gets nearer to the construction site where the second play group is situated. Just above the wooden beam two teams of three children are standing on each bank side and holding a boy from his hands and legs hanging him over the wood. Are they playing at carry the boy without letting go of him along the whole deck or are they holding catch of the momentum wave to throw him over somewhere faith and trust in his play mates that they would not hurt him on purpose is being built among children, the compassion and the will to show mercy with nothing in return.<sup>52)</sup> The basics of social life are learnt

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52) Edward Snow, "Inside Bruegel: the play of images in Children's Games", North Point Press, 1997

with play by interacting with other children. In all the three parties of playing groups, their games is made possible on their own or by exterior motives, the first group consists in a corporal play, the second and the third are integrated with a foreign material, all the three of them create a gradational activity flow of the wooden beam. It might be the same group of children playing these three different games as the play develops and intimacy and closeness is created along the play, from the first game of just trusting the other not to knock you down or kick you on the head as he leaps over, to the second game where trust is in the one that holds on to you, a one sided faith and expectation to be merciful, up to the third game that demands physical endurance while boys piles and sits on to you and you have to be able to tolerate play mates touching your privates. Therefore, the physical distance gets closer, and the jargon of emotional involvements also becomes intimate.

A user's behavior is unexpected and unpredictable, one receives triggers, impulses and inspired to act and think from different and undefinable matters, because each person comes with a different jargon, one's set of behavior is different, personal, unique and one of the kind, thus various, unthinkable and imaginable to some. When the setting of a place is not fixed the user will adapt itself to the situation when no choice is available, but when the user feels free and comfortable it will adapt its surrounding to better suit its needs. The main issue is about comfort and building, changing and making an environment that will make one comfortable, feel more relaxed, rested and peaceful.

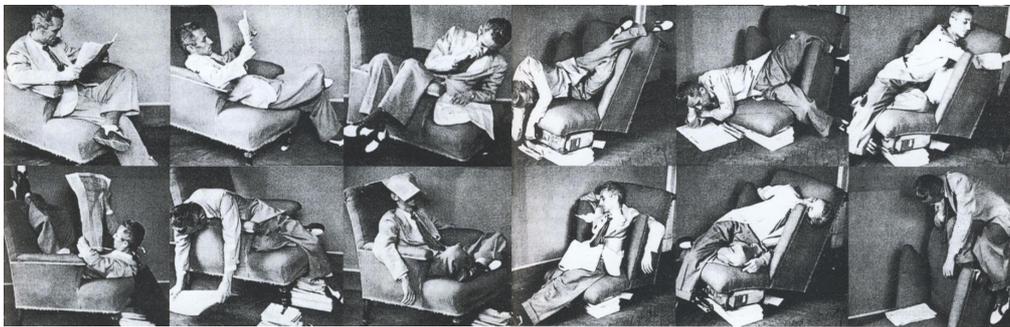
#### **4.2.2. The flexibility of human activity**

The individual is an un-certain user, who is un-predictable, un-known. The flexible character makes the individual open to the indeterminate.

In the photography of Bruno Munari, 'Search for comfort in an uncomfortable armchair', 12 sequences are shown, of a man trying to find all the possible ways of feeling comfortable in an armchair. This

shows the flexible character of the human being that can adapt himself to all situations according to his needs. Indeed, even the most common of furniture as an armchair can change its purpose according to the individual that manipulates it.

And furthermore, the definition of what is in fact comfortable is very relative to each and every person, hence the form of activity can only vary from one person to another. Although the basic purpose of an armchair that is commonly thought of, is to sit on it, the user can be much more flexible according to the activity and what the individual seeks for.



[Fig.40] Bruno Munari



[Fig.41] London, Serpentine Pavilion 2006

Another example is for instance, the Serpentine Pavilion that was co-designed in 2006, by Rem Koolhaas and Cecil Balmond, is a

structure that allows the manifestation of the flexibility of the human activity. Within the structure, the central area contains a number of mobile seating and table units, which can be arranged according to the wish of the user, of the visitor. Those mobile units can be used for diverse purposes, for eating and drinking, for film screenings, for more formal talks, and can be used even as block toys for kids.

#### **4.2.3. The choice and intersection of activity**

Intimate observation of the human being involved in a certain activity, shows that even though the body is occupied with a certain action and is in the middle of a movement in search for something else, even better still continues through the eyes, not only leading the way further ahead but also ahead for the next activity of interest. A brief review upon the source of interest is not a focused conscious behavior, the eyes wander around and suddenly stare at a certain image, that is the first trigger that sparkles through the eyes from the inner will. The proverb of 'eyes are the window to the soul' is known to be firstly made by Cicero quoted as saying:

"Ut imago est animi voltus sic indices oculi,"<sup>53)</sup>

which is in English, The face is a picture of the mind as the eyes are its interpreter. The uncorrelation shown here of the body and the sight shows that playing children are not only focused on their individual or communal play, they are also simultaneously focused on what the other is doing, getting intrigued by the other as to challenge oneself or just realizing that the next play thing is found.

With the sight only, activity boundaries are broken and other possible options of play are vastly available and ready to be discovered. The intentions that did not take place yet, can be foreseen with the eyes

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53) The Phrase Finder, [http://www.phrases.org.uk/bulletin\\_board/41/messages/1097.html](http://www.phrases.org.uk/bulletin_board/41/messages/1097.html)

only.

Saint Augustine mentions the love he had to play - while being in a middle of play there are unclear mingles of sounds poured from everywhere and it is difficult to identify the nature of the sound whether it is play or not, even after tentative of attentive listening there is a need for a prior knowledge in order to differentiate the meaning of the sounds and to filter out whether it is useful for the current situation of extending the play, the physical distance from the source of the sound is an indication of the level of the eagerness from the play, if enjoyed from the heart, sounds will echo throughout the whole grounds, but identification of sounds needs higher set of skills level than merely observing.

Unless disturbed by solid obstacles blocking the view, the sight, the eye is the first to drift around and check out the existing surrounding, the fastest sense which visually notices, perceives, contemplates. The eye resting upon each sight is dependent on its level of attraction coming from the observer, therefore, the ability of sight is very personal and individually unique, since eyes follow what interest guides to be attractive, interesting, amusing or new.

In the final version of the playground the main play area is the centered children's area with the different distribution of play elements leading to spontaneity of play, with the vast and versified senses intriguing play equipment. Due to its flat terrain the directness of the spontaneity is in its highest because of its simplicity of access.

As in Brugel's drawing the play occurs in a flat place, but the different plays have strong harboring so that an immaterial contour-ization is created, the voids between the activities are linked by senses alone. In a flat place, a non-visible boundary is created, and bubbles of activities, all independent from each other, undisturbed and unaffected by one another, or by the closeness of another activity - a virtual wall is created. The connection by senses are made visually,

being open to be able to see what's at the others, mingled sounds diminished by distance to the other and by your own is too vague, so the strongest is the sense of sight. Naturally more attention to the other will sharpen among all the fuzziness when there is a lost interest in the current, and the choice is firstly made by visual glance of the given data.

As in other projects of Kahn, as the Exeter Library, the choices are presented to the user visually first to be chosen from and all visual easy analysing the situation within its flow context, the proposing the needed changes made with specific treatment, the Landscape is the site specific space that its connectivities is needed to be re-made, the connectivity is the purpose for existence, the reason why people choose to be in a certain place or not. The community is the nature, more connectivities create more possibilities for communities to be created from, this is the free will of the men being shown by his possibility to choose from.

### **4.3. Indeterminacy through programmed landscape**

#### **4.3.1. Program - complexity, interdependency and openness**

The programs proposed by the variety of designs made by architects are in search of a way of expressing the need of flexibility. Throughout a web of connections, which is observed as complexity, and the interrelations made between those crossing points, which creates interdependencies between those points, and the melting down of boundaries, which leads to openness, programs are meant to define and serve what is indetermined.

"Program is viewed as the engine of a project, driving the logic of form and organization while responding to the changing demands of the society."<sup>54)</sup>

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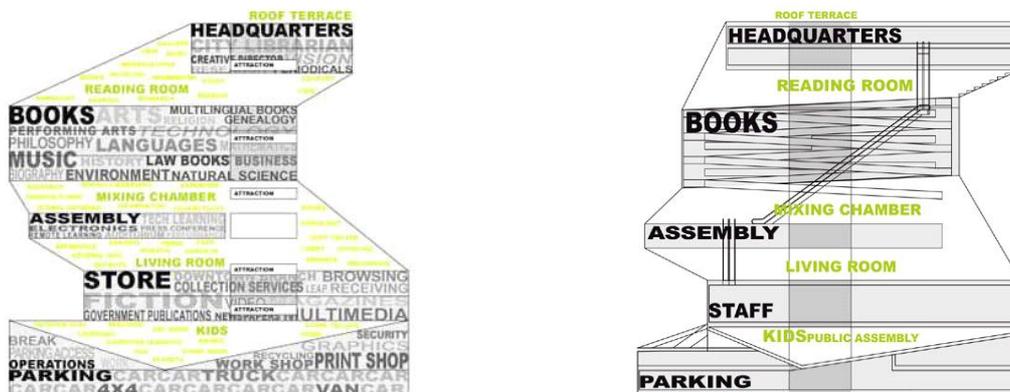
54) James Corner (ed.), "Recovering Landscape", Princeton, 1999, Alex Wall, "Programming the Urban Surface", p.237

In order to demonstrate the 'indetermined' character of the landscape, the built environment is composed of immaterial mediums. By associating one element to another, for instance, the outside and the inside, it creates a whole large range of connectivity and in order to do so, the landscape needs to be indetermined. The simple use of an additional material or by using the existing materials, as walls, glass, or even the nature itself, the indetermined character of the outside landscape can serve as a building material. This kind of architecture blurs the limit between interiority and exteriority; the indetermined landscape is considered as a building material. The importance of making more available possibilities comes from providing more possibilities of connections and personal interpretations, it is about offering a place with higher potentiality and connectivity. The program can be manifested in a very different way for each architect, whether it is about complexity, interdependency, openness, or the combinations of all.

As for Rem Koolhaas, in the designing process of a library, what mattered most was the organization. There were specific zones for the conservation of valuable books or materials, the reading area was already defined, and in some libraries, the totality of books was presented and available for the readers and library users. The library now offers rarity. Documents or materials that are not easy of access are available there, as for instance specialized books and magazines, or documents under copyright directives, and also valuable and big-sized documents that can hardly fit into a private space. This is what attracts people to come spend their time in the library. Furthermore, the library offers a space for physical gathering like a meeting, an encountering, a group study gathering, but also for events, such as book launchings, thematic seminars, or even famous author fan meetings. It creates a community with direct human contact, unlike the virtual network that the internet can offer. However, the Seattle Public Library is all this and also user oriented. For the busy users, who need direct and fast access to the

material and who already know in advance what they seek for, there are short-cuts so that they can obtain what they wish for in a short period of time. For those who do not have a specific purpose, those who come to visit, to kill time, the wanderers, the library design offers a broad eye visibility, so that their sight guide them to their interest. For the users with a specific objective, elevators offer a direct access to the wanted area, and spiraling escalators provide a promenading path for the wandering users. Throughout a vast openness at the center of the building, the library is seen as one whole entity. The diversity and richness of the space result in a user-specific accessibility, and there is no defined place for one single purpose, instead, it is in search of a fun place to be for the user. There is accessibility of information, direct and indirect, and also accessibility of space for a large variety of activities.

"Connectivity had become the defining characteristic of our twenty-first century urban condition."<sup>55)</sup>



[Fig.42] Seattle Library

The program can also create a web of interrelations between several elements, and lead to the creation of interdependent spaces. For

55) A. Krista Sykes (ed.) "Constructing a New Agenda: Architectural Theory 1993-2009", Princeton, 2010, William J. Mitchell, "Boundaries/Networks", p.233

Fujimoto, the notion of Indeterminacy is a planning tool creating connections between public and private spaces in housing. The House O is a one floored dwelling, composed with divisions of public and private spaces. The envelope of the private areas is made from a solid material, concrete, and the building envelope of the public areas is made out of a transparent material, glass.

It is one whole continued space of flow, in which rooms are niches in their extremities. The landscape itself is divided between nature and urban area, and the public facing the nature, and the private facing towards the urban area. Moreover, not only the urban area facing niches are from private nature, but all the niches in the House O are for some private use, as for instance, bedroom, bathroom, toilets, study room, tatami room, kitchen; and the connective space is consecrated for a public nature, as the entrance hall, living room, dining room, where the connectivity and the space flow is at the highest degree. The niches have no doors, no spatial separation or enclosures, since those enclosures are created through the indetermined landscape. The niches are rectangular spaces, in which the feeling of security is ensured. However, the spaces linking the niches to one another, are never in right angle, in order to create an influential connectivity from the outside to the inside and to create the indetermined landscape.



[Fig.43] Sou Fujimoto, House O

By embodying the dichotomy of openness and seclusion both, according to the angle in which the spaces are viewed by the observer indoors, the

surrounding scenery changes. Therefore, the private niches and the public connective space are hidden or discovered according to the angle and placement in which the observer stands. The concrete limits the transfer of information flow through it, but the glass, although used as a wall, can also serve to reflect the changing information of the landscape outside, like the weather, the colors or the incoming light, but also the projection of the image of the outside on the external part of the glass observed from the inside. The glass can be utilized as a barrier between the spaces indoors, since the glass projects and reflects the outdoor information and creates the enclosures instead of walls and doors. The indetermined landscape is brought to the inside and used as a tool, allows the connectivity between the private and public spaces indoors.

The connection made through the indetermined landscape in fact creates interdependencies between the private and public spaces inside the envelope. Depending on the separation and the connection, on the openness and the seclusion that are created by the imprints, reflections, and projections of the outdoor landscape information on the mediating material from the outside to the inside, the outdoor indetermined landscape create the complex connectivity inside the inner-space. In the House O, the connectivity within the dwelling is created by the envelope of the building, mediating and transferring, and therefore changing the information and the connections inside the house; the indetermined landscape is a planning tool to create connectivity in the house, and that connectivity is based on the interdependency of the elements composing the structure.

Another example of an open program can be seen in an atypical movie, *Dogville* by Lars Von Trier. The only thing that is present is a floor, any sort of material is not needed to create separation, and all is dependent in the state of mind of the player. This movie is the most extreme mirror to our current society and it is presented to the viewer not only in the context of the story of a man committing publicly a



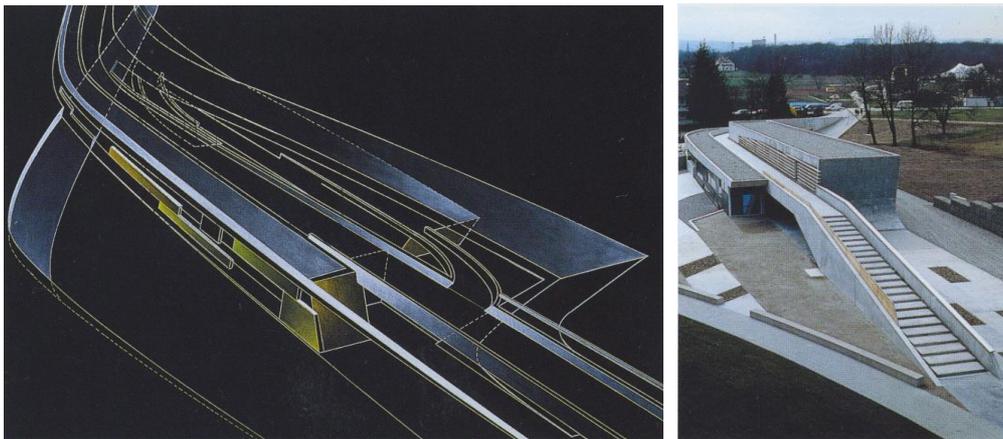
according to the contemporary architects, the landscape is indetermined through connectivity.

"This (landscape/field) is the ground structure that organizes and supports a broad range of fixed and changing activities in the city."

Kahn's Incompleteness is the notion of Availability in-between space and people which is very similar with contemporary architects' Flexibility, Program and Inter-determinacy. There is a commonly increasing interest on user oriented design, emphasis on free personal choice, that choosing is actually designing the self being, and architecture tends to respond accordingly to the social behavioral changes.

Different from the past linear thinking of cause and effect, the present has too many factors some not even known that have to be taken in consideration, relativity theories are now being changed to indeterminacy cause from the unknown amount of parameters all being connected in a complex network:

"I want spaces that are not closed, that have no predetermined orientation, that allow many flows and stimulate movement."<sup>56)</sup>



[Fig.45] Zaha Hadid, LF One building

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56) Hanno Rauterberg, "Talking Architecture: Interviews with Architects", Prestel, 2012, Zaha Hadid, p.79

"Good architecture is always both - very rational and very irrational."<sup>57)</sup>

Connections are created in-between men and space by offering all kind of possibilities for the user through availability, and it is expressed as 'indeterminacy'. Nonetheless, this very same concept is in point of fact derived from Kahn's Incompleteness.

The current society is full of fluctuating conditions, interwoven dynamics that intensify and densify the complexity of itself. A remarkable ascendancy of information, communication and computing can be noticed on a global scale, and indeed 'globalization' is the keyword to define the world in which we live nowadays. The proliferation of networks, and our increasing dependence upon them are the main cause of raising complexification and therefore, the augmentation of problems that come out if it.

"The more we depend on networks, the more tightly and dynamically interwoven our destinies become."<sup>58)</sup>

The 'indetermined' society creates more and more connections, interdependencies, more distribution, complexity and enlarged dynamic networks. It leads to wider boundaries that are even crossed over.

Nowadays, with the ideology of market, people are generally suffering from attention-gathering syndrome and think with their commercial logic. People are in search of sensations, of eccentricity:

"I think that what we're experiencing is the global triumph of eccentricity. Lots of extravagant buildings are being built, buildings that have no meaning, no functionality. It's rather about spectacular shapes and, of course, the architect's egos."<sup>59)</sup>

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57) Hanno Rauterberg, "Talking Architecture: Interviews with Architects", Prestel, 2012, Rem koolhaas, p.99

58) A. Krista Sykes, "Constructing a New Agenda: Architectural Theory 1993-2000", Princeton, 2010, William J. Mitchell, "Boundaries/networks", p.231

This is the common idea of the contemporary architects, they broadly feel the need to get emancipated from the dogmas of modernism. The interest "in content, in structures, in that which architecture is really made up of."<sup>60</sup> Koolhaas for instance, dreams of places that can be as accessible and public as possible. According to him, planning should be as open-ended and indeterminate as possible.

Robert Venturi and Denise Scott Brown think that good architecture does not have to be out of touch. It can be designed by good craftspeople and accessible to everyone.

"The meaning of a building is much more important than the expression and the shape of a building. We tend to use the word meaning only when we're talking about literature, but that's wrong. Architecture should also say to us again, just as churches once did. After all, they didn't just stay there mutely, they were buildings of immense eloquence."<sup>61</sup>)

Architects are in search of meaning, of deeper understanding of the current society and not only breaking records, like building the thinnest, the highest, and the most extreme designs. It is even a matter of feeling. The interest is focused on how people react to the buildings, what resonance they have.

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59) Hanno Rauterberg, "Talking Architecture: Interviews with Architects", Prestel, 2012, Rem Koolhaas, p.97

60) Ibid, Rem Koolhaas, p.98

61) Ibid, Robert Venturi, p146

## **Chapter 5.**

### **Conclusion**

In 'Levy Memorial Playground', Kahn demonstrated how connectivity made the space available for the flexible character of the Playing Man. The availability was realized through a landscape based on a complex, interdependent and open program.

The playground in which the Homo Ludens plays is a scaled-down urban area, and the play itself is simply the life we, individuals are living. "Indeterminacy, chaos theory, complexity theory" are the main concepts and directions towards which the structures are nowadays developed. Architects seek for ways to create new nature, rather than imposing human order.

Kahn was a visionary and anticipated the change that would happen and what the architecture would have to provide. The return to Kahn's concept of Incompleteness through the term 'indeterminacy' seems to be unavoidable, since the society, in which we live nowadays, is becoming more and more indetermined, and therefore more and more complex and dense, hence things are more than ever indetermined.

## Bibliography

김광현, "이상건축", 1998-2000

김광현, 제3의 텍스트, 놀이의 건축

A. Krista Sykes (ed.), *Constructing a New Agenda: Architectural Theory 1993-2009*, Princeton, 2010

Alessandra Latour (ed.), *"Louis I. Kahn: Writing, Lectures, Interviews"*, Rizzoli, 1991

Alexandra Tyng, *"Beginning: Louis I. Kahn's Philosophy of Architecture"*, Wiley-Interscience, 1984

Charles Waldheim (ed.), *"The Landscape Urbanism Reader"*, Princeton, 2005

Chora, *"Urban Flotsam: Stirring the City, 010, 2001"*

David B. Brownlee, David G. De Long. *"Louis I. Kahn: In the Realm of Architecture"*, Rizzoli, 1991

Ed Wall, Tim Waterman, *"Basics Landscape Architecture 01: Urban Design"*, AVA, 2009

Heinz Ronner, Sharad Jhaveri, *"Louis I. Kahn Complete work 1935-1974"*, Birkhauser, 1987

Herausgegeben Von (Edited), *"Chora: Raoul Bunschoten, From Matter To Metaspaces: Cave, Ground, Horizon, Wind"*, SpringerWienNewYork, 2005

"Isamu Noguchi & Louis I. Kahn, *Play Mountain*", The Watari Museum of Contemporary Art, 1996

James Corner (ed.), *"Recovering Landscape"*, Princeton, 1999

Johan Huizinga, *"Homo Ludens: a Study of the Play Element in Culture"*, Beacon, 1938

Kent Larson, *"Louis I. Kahn Unbuilt Masterworks"*, Monacelli, 2000

Lian Lefaivrem + Doll, *"Ground-up City: Play as a Design tool"*, 010, 2007

Louis I. Kahn, Dung Ngo, *"Louis I. Kahn Conversations with students"*, Princeton

Architectural Press, 1998

Michael Merrill, "Louis Kahn on the Thoughtful Making of Spaces, the Dominican

Mitsuru Senda, "Community play apparatus, Process: Architecture", number 30, 1982, June 1st

Motherhouse and a Modern Culture of Space", Lars Muller Publishers, 2010

Nick Barley (ed.), "Breathing Cities: The Architecture of Movement", Birkhauser, 2000

Richard Saul Wurman (ed.), "What Will Be Has Always Been: The Words Of Louis I. Kahn", Rizzoli, 1986

Robert McCarter, "Louis I. Kahn", Phaidon, 2005

Robert Twombly (ed.), "Louis Kahn Essential Texts", Norton, 2003

Roger Caillois, "Man, Play and Games", Illinois, 2001

Saint Augustinus, "The Confessions of St. Augustine", book I-II

Shaina D. Larrivee, "Playscapes: Isamu Noguchi's Designs for Play", Public Art Dialogue, 2011

Sou Fujimoto, "Primitive Future", INAX, 2008

Susan G. Solomon, "American Playgrounds: Revitalizing Community Space", Upne, 2005

The New York Times, Archives, 1961-1966

## 국문초록

### 루이스 칸의 '레비기념놀이터'에 나타난 '불완전성'에 관한 연구

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루이 칸이 제시하고 개념화한 불완전성(Incompleteness)은 완성을 지향하지 않는 과정 그 자체를 공간적 질서로 파악했다는 점에서 혁신적이다. 이는 베르그송(Henri Bergson)이 생명의 약동(élan vital)으로 파악한 유기적 세계관과 철학적 기초를 공유한다. 그러나 이 '불완전성'이 공간적으로 실증되고 체감으로 이어지는 과정이 건축학적으로 규명되는 일은 아직까지 가시화되지 못하고 있었다.

이 논문은 칸이 1961-66에 계획한 레비 기념 놀이터에서 공간의 '불완전성'의 가시적인 구현 형태를 찾아보았다. 이 놀이터는 비록 계획에 그쳤으나 다양한 목적을 지닌 사람들의 관계를 공간의 설계에 담아내고자 했다는 점에서 주목된다. 특히 어린이들의 행위의 즉흥성과 운동반경의 다양성은 예측불가능하다. 이 놀이터에서 예측불가능성을 구조적 공간과 연결하고 이것이 다시 공간적 조건으로서 행위의 창조성을 계발한다는 점에서 전형적인 유용성(Availability)의 사례를 보여준다. 칸은 또한 공간을 사용하면서 정해진 목적성보다 새로운 가능성을 발견하는 것을 중요하게 여겼다. 그에게 디자인은 새로운 가능성이었다. 그의 건축 형태는 사람들에게 선택의 기회를 준다. 인간의 선택 가능적 영역의 확대가 곧 그가 목적했던 유용성이었다. 칸의 정해지지 않은 목적의 선택적 공간은 그의 다른 건축물을 통해서도 찾아볼 수 있다. 라이스대학 계획에 드러난 중정, 소크(Salk) 연구소

의 Meeting House 등이 유보의 공간으로서의 성격을 보여준다.

레비 기념 놀이터에서는 우선 사용 대상의 다양성에 대하여 열려있는 공간을 구상하였다. 또한 놀이터의 구성요소는 빈 공간 속에 통합되어 아이들의 생각과 놀이가 서로 이어지면서 쉽게 새로운 놀이가 구성될 수 있도록 하였다. 이 같은 개별 구성요소의 유연한 연결성(Connectivity)은 다양한 행동을 가능하게 해준다. 칸의 놀이터는 미리 계획되는 것이 아니라 즉흥적인 영감에 의해 구성되는 것이며 그의 시설은 끊임없는 자발적인 자유로움을 일으킨다. 이 관계를 칸은 '불완전성'으로 개념화하였다.

칸이 레비 기념 놀이터에서 보여준 불완전성의 개념은 현대도시로 확대될 수 있으며 도시 자체의 불완전성을 긍정적인 삶의 유동성(Flow)과 환경의 제한된 경계를 넘어서는 연결성으로 설명하는 도구가 될 수 있다. 이 같은 불완전성은 인간행위의 원초적 유연성(Flexibility)이 이루어지는 조건이다. 따라서 건축가에게 인간본연의 유연성을 충족시키는 환경으로서의 복잡성(Complexity), 상호의존성(Interdependency), 개방성(Openness)을 지니는 설계가 요구된다. 또한 이와 같은 구조물이 자연 환경과 조응하면서 자연 환경과 융합할 수 있을 때 인간이 살아가는 랜드스케이프(Topology of Landscape)의 새로운 가능성이 전개될 것으로 기대된다.

**주요어 :** 루이스 칸, 레비기념놀이터, 불완전성, 유용성, 연결성, 랜드스케이프.

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## 감사의 글

'집이란 마음이 있는 곳' (Home is where the heart is)이라는 속담 하나와 폴 부르제(Paul Bourget)의 '사람이 생각하는 대로 살지 않으면 살아온 대로 생각하는 것으로 끝난다' (One must live the way one thinks or ends up thinking the way one has lived)라는 심지 있는 말 한 마디가 살아본 적은 없지만 한국 국적을 지키며 한국 여권만으로 독일과 이스라엘에서 살아온 나에게 한글을 배우고 한국을 알아야 하므로 엄마가 있는 한국에 가야겠다는 용기를 주었습니다.

히브리어가 모국어인 저에게는 2년간의 한국어 교습으로 일상생활은 어느 정도 익혔지만 건축학 관련 논문이나 서적을 읽는 일은 불가능한 일이었습니다. 영어 또한 부족한 외래어여서 저를 제자로 받아주신 김광현 교수님께서 논문 지도 외에 한국어 교육도 감당하셔야 했습니다. 특히 사려 깊지 않은 의견과 서툰 어투로 오해를 일으키고 자주 야단맞기도 하였지만 열성을 다해 제자를 가르치시는 교수님의 진정성이 저를 참을성 있는 사람으로 길러주셨습니다. 그러한 모든 것들이 한국사회에서 소통이 될 수 있는 건축가를 만들고자 했던 담금질이었다고 생각합니다. 부족한 논문을 읽어 주시고 꼼꼼히 지적해주신 최재필 교수님, 백진 교수님께도 감사드립니다. 제 논문의 미진한 부분들을 질책해 주신 가르침을 늘 가슴에 담고 정진하겠습니다.

제가 공부한 건축의장연구실은 저에게 밤늦도록, 밤을 지새우는 것을 두려워하지 않으며 공부하는 제련소 같은 곳으로 기억될 것입니다. 그곳에서 헛디디지 않도록 손잡아 이끌어주신 선배님들과 동기, 후배들에게 감사의 인사를 드립니다. 그리고 특별한 시간을 함께 해준 동생 예수산내에게 말로 다할 수 없는 고마움을 전합니다. 마음이 있는 집, 생각을 사는 삶으로 저를 가르쳐주신 김광현 선생님께 지도받은 제자로서 부끄럽지 않도록 노력하겠습니다. 석사논문과 함께 진짜 한국인이 된 것 같습니다.

감사합니다.

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