

# P l a y

by

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A thesis

presented to the University of Waterloo  
in fulfilment of the  
thesis requirement for the degree of

Master of Architecture

Waterloo, Ontario, Canada, 2011

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I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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## A b s t r a c t

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Adults in North American society lack the natural ability of children to play and explore their environments in a non-judgemental, non-programmed manner. The underlying theories of James Carse and Johan Huizinga examine play and its effects on adult culture.

St. Louis Adult Education and Learning Centre in downtown Cambridge, Ontario serves as a testing ground for an adult play-space. Presently, the school lacks any public, non-programmed spaces to accommodate the student population, largely comprised of single, teenage mothers.

Aldo van Eyck's architecture, together with his theoretical essays, heralded the importance of play in culture and to the individual. Van Eyck created a network of playgrounds to revitalize and rehabilitate the city of Amsterdam after the Second World War. His designs of the temporary Sonsbeek Pavilion and sculpture garden in Arnhem, the Netherlands, brought play into the cultural realm of 1966. Van Eyck's design of the Sonsbeek pavilion concretizes the play-theories of Carse and Huizinga.

A collage of the Sonsbeek Pavilion inserted into the empty grounds at St. Louis tests the play theories of van Eyck, Carse and Huizinga. It provides a space for play where no play currently exists. The Sonsbeek Pavilion's heavy, concrete walls and labyrinthian plan swallow the players, who become immersed in a place of play. As the player moves through the pavilion, the view shifts to provide or block views of the adjacent spaces. The pavilion proposes a site of exploration and surprise. It provides the possibility for the adult students, the teenage mothers, their children, and the surrounding community to play.



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## A c k n o w l e d g e m e n t s

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I would like to thank the following people whose guidance, countenance and wealth of knowledge made this thesis possible and playful:

To my advisor, Dr. Robert Jan van Pelt, for his wisdom, unwavering support and patience throughout this process. His interest in play was inspiring and motivating. His belief in me gave me belief in myself.

My committee members, Ryszard Sliwka and Donald McKay for their critical and invaluable input when I needed it most. To Anne Bordeleau for her enthusiasm and encouragement, and to my external reader, Barry Sampson, for his time and interest in my work.

The staff at the Waterloo Architecture main office, Arch Computing Media and the architecture library for their continual optimism and assistance. Thanks to Dave Launslager, Vice Principal of St. Louis Adult Learning and Education Centre for his time and effort to ensure I understood and appreciated the nuances of the school and its students.

Thank you to my friends and peers for the countless hours of discussion, collaboration and play.

Lastly, thank you to my family for their love and support, always. Without them, I would never have learned to play.



For everyone who has played.



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## W o r d P l a y

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The following terms interpret definitions from the *Oxford English Dictionary* with the theories presented by Johan Huizinga, James Carse and Aldo van Eyck.

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P l a y : ( n . )

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Play does not exist in the realm of work. Instead, it hovers above it, in its own time and space. Play centers around recreation: a jovial activity or set of actions that the human body, or many at once, engages in. Play, both in jest and seriousness, exists outside of the norm. It exists within spatial and temporal boundaries, as a playing field or dramatic theatre. These exist as a space for movement, an arena in which the individual or group may engage in a game, sport or theatre. The play, the action, the motion. Play is a concrete thing with boundaries, players and rules.

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P l a y : ( v . )

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To play, to practice, perform or execute movement; play opposes sitting idle. Play must be engaged in freely; otherwise, it is not truly play. To partake in play one must acknowledge that he is in a space and a time of play. Players all acknowledge and upon and agree to the established boundaries as agreed upon by fellow players. The act of playing respects these guidelines of space, time and assembly, while also offering the players freedom in movement and action.

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Play : *Prescriptive*

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Often, objects prescribe a specific use or set of actions to be followed. The apparatus typically found in North American playgrounds limits the user's action potential and creative outcomes. The apparatus directs the user through the space, and, also directs the interactions with the objects within the space. The apparatus dictates how the user will interact with it and offers limited opportunities for change or permutations to this directive. The user mindlessly follows the prescribed delineation of actions, which requires far less creativity in thought than rebelling against it.

The teeter-totter and swing-set hinge, moving up-and-down or back-and-forth, respectively. The slide rests vacant, inviting users to sit while they gently glide from top to bottom. These prescriptive uses ingrain themselves in the public's consciousness, and make it difficult for the user to overthrow the object's primary function and invent a new one.

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## Play : *Creative*

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Creative play allows the user to play freely and project his own meaning onto the objects he engages with. Static, simple objects encourage creative play, where the object does not dictate use, but suggests it. The user may then play in any manner he sees fit, incorporating the static objects available into his games. This type of creative play activates the user's mind and body, while the user activates the objects and space around him. The player becomes free to act in myriad ways by reappropriating the object according to his own preferences, using the play equipment as a catalyst.

The lack of a single, clear direction opens up play in all directions; it blows the doors of opportunity wide open. The user decides how he will engage with the infinite options afforded to him. No correct or incorrect play exists; only games the user may create himself or in collaboration with others.

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## Play : *Passive*

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Similar to prescriptive play, passive play focuses on the user as “submissive”. He succumbs to the expected intention of the apparatus they interact with. The individual holds the reins while the object manoeuvres him through space. The object defines the user’s actions and thought. The player exerts minimal effort both physically and intellectually, and reaps the benefits of the object’s motion. Passive play is play by default. Most conventional, North American playgrounds focus on this type of play. The play structures that litter so many schoolyards and parks require users, mostly children, to do little more than sit on or climb upon them.

The playground supports one object in motion. When the apparatus performs the motion, the user becomes the static element it reacts to. The user “readily yields to external force” and rests idly as the object produces the outcome. The synergy between form and function impedes the user’s creativity and use. The player may clearly identify the activities the apparatus may or may not support. This visually preempts the user’s mind from expanding laterally to explore any other uses, preferring immediately the linear, or most obvious, ones.

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## Play : *Active*

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Active play reverses the role of the user, and allows the player to become the dynamic object in space, rather than the apparatus. The player becomes the kinetic force, and animates the space with his own motion. Objects that support active play appeal to a wide range of users and a wide range of actions. The player takes ownership over the space. The lack of predefined, prescriptive uses invites individuals of all ages and backgrounds to explore and interact with or against an object. A “right” or “wrong” way to play does not exist. A blank slate provides each individual the opportunity to analyze and interpret an object, their own body, and their level of comfort prior to determining how they will interact with the apparatus.

Static, elementary forms create endless possibilities for play. Abstract forms open up a world of play simply by offering possibilities. The object becomes a catalyst for play. The user decides how his body may be controlled by or within the apparatus’ limits, which sparks a dialogue between man and artifact. Active play does not limit itself to children; adults, too, explore their own creativity against these forms.

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Play : *Finite*

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Finite describes boundaries, limitations; a definite edge, a beginning and an end. Finite binds space and time, rooting both in a present reality.

Finite games exist firmly in the present. The place of play and the objects the players interact with, provide distinct rules the player must adhere to within the course of the game. These regulations do not change throughout the game to ensure the rules of play remain in place in order to produce a definitive winner.

Finite play keeps the action within the bounds of reality. This maintains a static element to the game, play and space.

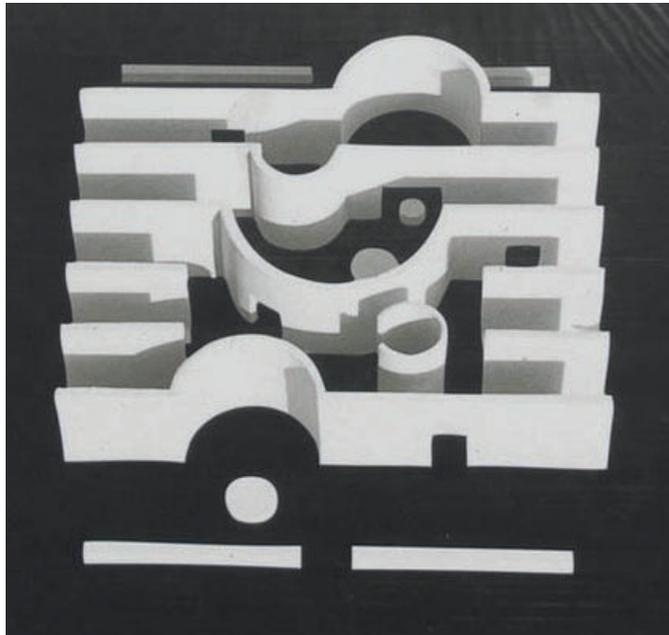
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Play : *Infinite*

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Infinite is abstract. Infinite space describes a space that has no border or physical bounds. Since a beginning and end, or inside and outside, must exist in reality, infinite spaces refers to a hyperbolic “immensely great distance” or duration of space and time.

Infinite play suggests the proliferation of action with no foreseeable end. Play for play’s sake; play to continue playing; play that knows no bounds. Play that does not let the constraints of reality, time, place, rules, norms obstruct it. Play continues with no end in sight, no ultimate goal and no clear winner. Play that does not rely on these limitations takes on a special quality, in which all players understand that the need to continue play pushes past the boundaries of reality to continue in search of new or unforeseen horizons. Infinite play pushes past the shifting, unfolding and exploration of play outside of time; outside of place; outside of reality.



*fig. 1.*

In play we may move below the level of the serious, as the child does; but we can also move above it - in the realm of the beautiful and the sacred.

Juhan Huizinga, *Homo Ludens*



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## P r e f a c e

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North American society understands the value of play in children's development. This explains the location of play-structures in schoolyards of most elementary schools. School-boards, parents and the community do not overlook the significance of play for students of this age. However, as the children mature, the importance of play wanes in the eyes of the decision-makers. As a person ages, the need for play intensifies, and the outlets for it dwindle dramatically. Adults, then, must find alternative outlets for this energy output, and places to find community. The nature of adult play often confines itself to finite play, eschewing the infinite and imaginary games of childhood. Organized sports and gambling come forward as the most frequent examples of adult-oriented expressions of play, rather than the free-expression of infinite play.

Adults and children both play inherently, though the difference in the games they play has been cleaved further apart due to adults' adherence to social norms and conventions. Adults have effectively been trained to prevent play from infiltrating their daily lives. Perceived North American behavioural norms do not present play as having a great importance in adult lives. Presently, children play; adults observe.

Children play instinctively. They use their immediate surroundings as a catalyst to invent games and actions. Sidewalks as bridges over flames, baseballs as searingly hot stones, beds as deserted islands in the ocean. The same behaviour that is encouraged in children is reprimanded in adults. Society must rethink the value of adult play, and how to bring that into the forefront of consciousness, rather than relegating it as “uncivilized” behaviour.

In 1966, Dutch architect Aldo van Eyck designed a series of tall, seemingly-parallel, concrete-block walls that he interrupted with semi-circular partitions once inside the space.<sup>1</sup> Van Eyck designed the pavilion in the most elementary manner: a square within a circle, then, the circle within the square. Van Eyck rendered all elements to their most basic form in order to evoke movement, exploration and creativity from the visitors. Through the design, the Sonsbeek Pavilion became a site of active, creative and infinite play.

The Sonsbeek Pavilion sat in a forested, public park in Arnhem, the Netherlands. The pavilion separated itself from its surroundings via a long, meandering path, and created a magical, distinct place within the adjacent forest. The pavilion temporality sits at the forefront of its existence, since after a single season of use it no longer remained, except in the memory of the players. The addition of sculpture brought an added layer of playfulness to the pavilion’s programme. However, the plan itself, enhanced by programme and site, becomes the most playful element.

During the Cold War, the Sonsbeek Pavilion provided a feeling of lightheartedness to those that visited during that tense, dark period in history. The concept of a pavilion, temporary and

basic, coupled with sculptures, transmitted a sense of levity to the visitor, rather than reinforcing the gravity of the moment's political situation.

With labyrinthian qualities, the plan of the Sonsbeek pavilion revealed and concealed spaces from the viewer. The boundaries of the pavilion shifted in relation to the visitor, changing their perception while opening up new perspectives. The pavilion changed as the player moves through the space. The boundaries, though formally finite, gave way for infinite exploration and infinite play.

In my description of the Sonsbeek Pavilion, I used the passive tense: sat, separated, provided, transmitted, etc. A light-hearted place, it was constructed to last only a single season. It was pulled down in 1966, a few short months after its construction.<sup>2</sup> The pavilion has since been reconstructed a short distance from its original location. The rebuilt pavilion bears the same physical qualities of the original, but within the context of a museum. The new context offers a different perspective on play, by removing much of the freedom associated with the original construction in a public park.

The reconstruction provides a precedent for duplication and resurrection of van Eyck's designs; the replication of his playgrounds or pavilion in alternate settings. Though the original context of van Eyck's work heavily influenced its form, the designs of each playground adjusted to suit each new context. The play that van Eyck evokes from his users should be shared and proliferated. It should not remain confined to the past. Adults require play; van Eyck provided play.



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## L a c k o f P l a y

*St. Louis Adult Learning and Continuing Education Centre*

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I have played. At age 25, I am completing my Master of Architecture degree. I am still playing. To picture myself as a mother at eighteen years of age means picturing an entirely different person. Questions arise : Where would I be? What would my life be like? What would I be doing? I would have drastically different priorities and different needs. I would have a different life.

The choices and circumstances that lead to teenage motherhood vary with each individual. I have avoided their alignment. I have lived life freely throughout my adolescence and young-adulthood, making decisions that affect only my own future, not the future(s) of another. I have been free to play if and when I choose.

Raising a child while still essentially a child brings with it great responsibility, a burden that most teenagers choose not to carry. The job of successful motherhood lies in selflessness, the ability to shift priorities to put the child's interests and needs first. Selflessness becomes a difficult task for teenagers, who constantly seek the satisfaction of their own needs before those of another. To put this natural inclination aside for the needs of a child creates an internal conflict within the young mother.

The selfishness with which I acted and made decisions during my adolescence would not be acceptable behaviour for a mother. I was barely fit to take care of myself, let alone a child. The process of going to University and living on my own provided me with responsibility one step at a time. This has continued throughout my enrolment at the University of Waterloo School of Architecture (UWSA) since September 2003. I have been able to focus on myself, my studies and play. It has been a series of games. In them, I have grown, learned and explored.

I hasten to think of how my personality would have developed, who I would be and what I would or would not know without these experiences. What would I be like today if I had a seven-year-old child, and had not attended University in this same capacity. I question whether I would have attended University at all.

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The St. Louis Adult Learning and Continuing Education Centre in Cambridge, Ontario, is a continuing education centre for adults under the jurisdiction of the Waterloo Catholic District School Board. The school contains a diverse population of newly-immigrated adults acquiring Canadian credentials, high-school drop-outs who found solace in a world of drugs and alcohol, and a large population of single, teenage mothers. The teenage mothers are often younger than 18, the minimum

age of admission for all other students. The teenage mother, still young herself, now holds the extra weight of finishing high school, entering into adulthood and raising a child. She requires play in her life.

St. Louis, as it stands today, lacks any form of play-space. Presently, the adults sit. They do not play. They watch the cars pass by or smoke cigarettes and chat amongst themselves as they wait for the bus to arrive. Otherwise, they leave the school grounds immediately after their classes have ended. Play rarely emerges from this circumstance. The students of St. Louis do not have a play-space for themselves, or for their young children. While children find ways to play anywhere and everywhere, adults do not. Most bow to social the social conventions that place play under the jurisdiction of children. This renders the green space at St. Louis vacant.

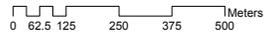
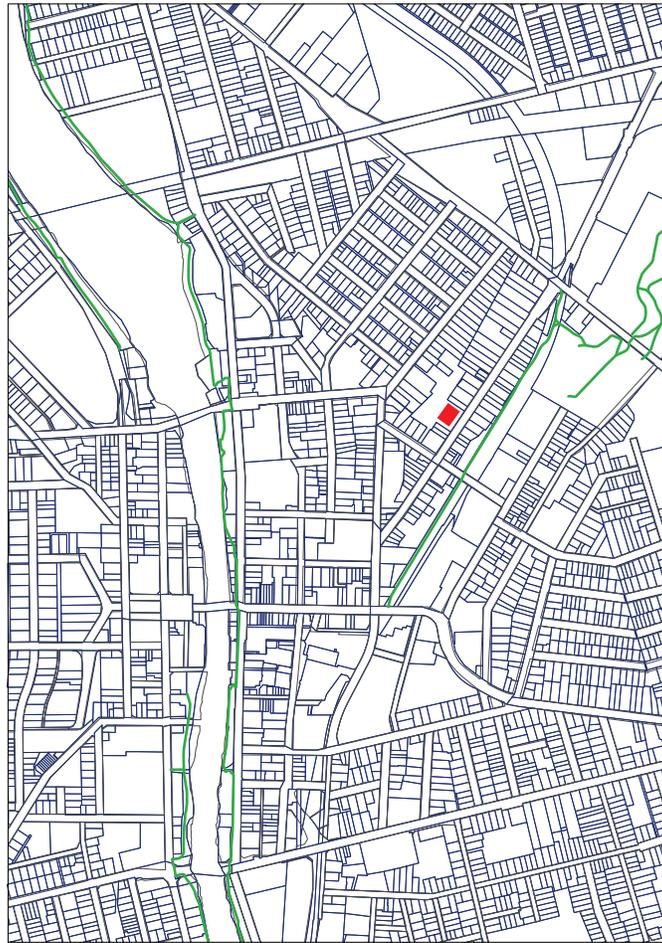
Without play, life focusses on the finite; winning and losing rather than the perpetuation of the game. The objective in school remains acquiring a diploma, rather than acquiring knowledge. Raising a child becomes a task, rather than a lifelong endeavour. The seriousness of the finite can overtake and overwhelm the playfulness of the infinite. Should infinite play not exist, seriousness looms heavily over the players.

The programs in place at St. Louis create finite educational situations; learning a trade (i.e. Hairdresser or Personal Care Worker) rather than focussing on education at large. The focus on finite games and situations effects the students enrolled at St. Louis. The lack of outdoor play-space ensures that the focus remains on the finite, rather than embracing the infinite. The emphasis rests on immediate results rather than projecting into the future.



*fig. 2.* St. Louis Adult Learning and Education Centre, as seen from Beverly Street in Cambridge, Ontario. Cambridge City Hall can be seen in the distance.





**fig. 3.** Map of Cambridge, Ontario, indicating location of St. Louis Adult Learning and Continuing Education Centre and its context within the city's network of bike routes and parks.

Like anyone at play, the students at St. Louis must be free to do so. James Carse, in his text *Finite and Infinite Games* identifies the role of freedom in play. “In one respect, but only one, an infinite game is identical to a finite game. Of infinite players we can also say that if they play they play freely; if they must play they cannot play.”<sup>1</sup> Play must come from within. The students must be willing to engage in the game. The creation of an infinite play-space at St. Louis may provide these students, both children and adults, opportunity to let go and engage in playful activity, in an infinite game.

I am proposing the insertion of a play-space onto St. Louis’ grounds. In doing so, I hope to bring play to the observers, and introduce freedom into the tightly-wound lives of North American adults. Once the innocence of childhood vanishes, and a lack of self-consciousness that comes with it, play all but vanishes from everyday life, with the exception of observation. Huizinga asserts the seriousness of play. The adult requires play just as the child does.<sup>2</sup>

The consciousness of play being ‘only a pretend’ does not by any means prevent it from proceeding with the utmost seriousness, with an absorption, a devotion that passes into rapture and, temporarily at least, completely abolishes that troublesome ‘only’ feeling. Any game can at any time wholly run away with the players. The contrast between play and seriousness is always fluid.

Johan Huizinga  
*Homo Ludens*

A place of play at St. Louis Adult Education and Learning Centre will encourage the act of play in adults, specifically the teenage mothers that attend the school. These young women, saddled with enormous responsibilities early in life, require play to ease their minds, and insert play into an otherwise serious situation. This, coupled with the great amount of un-programmed outdoor space at the school, provides a unique and highly viable location for an adult play-space.

St. Louis is located just outside of the downtown core of Galt, Cambridge, Ontario, a downtown core once prosperous, but now in a state of neglect and underuse. The picturesque town itself hides a dark underbelly; a culture of drugs, prostitution, and many unwed, teenage mothers looms just out of sight. The flight of many businesses and residents from the core to the suburbs has left the city in a state of collapse, one that it is trying desperately to crawl out of. Downtown Galt does not contain large areas of green space, many public parks, playgrounds, or informal meeting locations. Instead, it contains of large swaths of parking lots that stretch between blocks, rather than communal outdoor spaces.

St. Louis does not have programmed play-spaces for the children or the adult students anywhere on their property. The school board insists all children remain inside, even during the summer months. The adult students leave school property during their lunch break and immediately after school ends. They do not remain on the property as the school's grounds do not provide them any reason to. Though the school contains ample green space, St. Louis' grounds remain completely unused. The site faces Beverly Street, a busy road that connects directly to Galt's City Hall and downtown core. Presently, small,

concrete stairs lead from Beverly Street to the locked doors of the school's original entrance. Students use these stairs to meet, smoke and wait for the bus. Aside from this limited use, the remainder of St. Louis' outdoor spaces lies vacant. This space exists as short-term inhabitation only. The empty, outdoor space rarely holds students' attentions and does not stimulate or encourage any additional use or play from the students. The potential play-space requires activation through play, much like the city of Cambridge and its residents require play.

The play-space at St. Louis activates the neighbourhood as well as the school's physical grounds and its population. This integrates the school into its surrounding community, with both physical and emotional ties. Instead of isolating its students, the school could become an important node within the neighbourhood. The students could oscillate between their role as student and citizen, assimilating themselves into their community. For a symbiotic relationship to occur, the neighbourhood must also accept the students into their midst. The student population at St. Louis presently consists of "the other": the teenage mother, the high school drop-out, the recent immigrant. These individuals do not fit squarely into the socially accepted "norm", though they still require play. Play may afford the students these opportunity to fit into society in a way they had not previously been granted.

The school-to-work programs offer the students opportunities to gain skills and career opportunities while completing their Ontario Secondary School Diploma (OSSD). While enrolled in these programs, the students take on a professional role, and enter into a finite game within the infinite game of education. However, most students at St. Louis do



*fig. 4, 5.* Students smoking outside of St. Louis. They use the stairs leading from the street for smoking and little else.

not enroll in these courses. Instead, they opt to earn standard credits in standard classrooms.

A sense of playfulness seems absent from these women's lives. The inclusion of play at St. Louis will instill a sense of recreation and pleasure into the school, the community, and especially these women. A place where they may play alone, with peers, with their children, with the community.

A play-space inserted into the downtown's fringe area may create a gravitational pull that brings nearby residents and workers to the site. As play holds such an important role in the lives of adults and children, the play-space could become a destination within the city.

Play should not only occupy the consciousness of children, but become a regular activity in the daily lives of adults. St. Louis acts as an example of play inserted into the consciousness of North American adults. The students at St. Louis, specifically the teenage mothers and their young children, could benefit tremendously from an accessible play-space; a space that allows them to test their own intellectual and creative limits within the general boundaries of the school.

St. Louis provides government-subsidized child-care to mothers of children under the age of five. This service encourages the young mothers to attend classes and complete their diplomas. All mothers under the age of eighteen, the minimum age for all other students, are eligible to enroll in this program. These young mothers create a community and support group amongst themselves and their children. In his book *Homo Ludens*, Johan Huizinga asserts the significance of a play community. The group dynamic brings play outside of the finite boundaries of the game and into other aspects of the mothers' lives.<sup>3</sup>

## *Play*

A play-community generally tends to become permanent even after the game is over. Of course, not every game of marbles or every bridge-party leads to the founding of a club. But the feeling of being “apart together” in an exceptional situation, of sharing something important, of mutually withdrawing from the rest of the world and rejecting the usual norms, retains its magic beyond the duration of the individual game. The club pertains to play as the hat to the head. It would be rash to explain all the associations which the anthropologist call “phratry - e.g. clans, brotherhoods, etc. - simply as play-communities; nevertheless it has been shown again and again how difficult it is to draw the line between, on the one hand, permanent social groupings - particularly in archaic cultures with their extremely important, solemn, indeed sacred customs - and the sphere of play on the other.

Johan Huizinga

*Homo Ludens*

Play outside of the classroom helps to instill a sense of community through interaction with other students both in and outside of their position. Johan Huizinga notes that the bonding created in these circles stays with each player long after the game has ended.

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the world and rejecting the usual norms, retains its magic beyond the duration of the individual game.

Johan Huizinga

*Homo Ludens*

These friendships and relationships that occur within the sanctity of the play-space may evolve into encouraging and lasting relationships. They may extend the boundaries of play into the classroom or community beyond. Optimistically, the play circle may extend into the daily lives of these young women, bringing elements of finite and infinite play into their lives.

Play should provide the teenage mothers at St. Louis recreation and liberation from their current circumstances. These young women, while still in their later stages of adolescence, still exhibit the playfulness of childhood. This naiveté and innocence brings about the instinctual ability to play freely and imaginatively. Instead of playing to win a contest or compete a task, the objective becomes infinite; play continues solely to continue play. By re-incorporating play into the adolescent period, not just childhood, adults stand a higher chance of infinite play comprising an integral part of their lives. Imparting infinite play into education and daily activities will contribute to sensations of hope and increased joy amongst the players.

The lack of play in these womens' lives directly reflects the economic and social context they live in. The hardship of raising a child at a young age, largely without additional financial support puts a strain on a woman's livelihood. This often results in a pessimistic outlook on life. She becomes overwhelmed by the finite, unable to shift her focus to the



*fig. 6.* Stairs leading to now-locked “front” doors of St. Louis from Beverly Street.

infinite. The concrete walls of the house still shackle her, and she cannot see the horizon beyond.

The teenage mothers enrolled at St. Louis have another chance to complete their high school education. After dropping out of high school, many young women return to St. Louis to complete their education and reintroduce play into their lives. Play occurs both inside the classroom and outside of it. Placing education as a value rather than an obstacle brings school and education into the realm of infinite play, and encourages the students to actively participate in it.

Today's social and political climate cannot be compared to prior generations, when bearing children at the age of eighteen was commonplace, rather than criticized. As recently as two generations ago, marriage and childbirth typically occurred during late adolescence. Those that did not marry were often shunned as social outcasts by their neighbours and peers.

Until recently, the role of the man in society greatly overshadowed the role of the woman. The woman stayed home to care for her children, while the man went to work. Having little to no education and little to no choice in the matter, the women of past decades and centuries raised their children during their own youth. These women did not have the privilege of exploration, creativity and openness in their lives. The role of the woman resided in the home whose solid walls became solid, boundaries.

Many considered single mothers an "embarrassment", and shunned them to the margins of society. The religious and social temperature had not yet shifted from its staunchly conservative pulpit. The fault of an unwanted pregnancy always rested on the woman; her morals and integrity put into question. She and her child became society's abject.

Womens' position in society has changed dramatically in a mere half-century. The Sexual Revolution during the 1960s empowered women to join the workforce and pursue higher education. In discovering freedom and possibilities, the concrete walls of the home opened up, and revealed infinite possibilities and infinite play beyond. The women saw the horizon line that the walls of the home previously obstructed. The women may now explore their own lives, and make decisions about how to lead them. Marriage and childbearing has become a possibility, rather than a requirement.

Presently, the average age of childbearing sits much higher than past decades. In 1961, the average woman gave birth to her first child at 23.5 years. In 2003, the average age raised to 28.0.<sup>5</sup>

Now, many more women choose to settle into careers, education and relationships rather than starting a family immediately after graduating from high school. Women hold much more power in society, in the workplace, and in their own relationships than ever before. Generally, they earn their own incomes, have the ability to become financially independent, and do not rely on a man as the "bread-winner".

These socio-economic changes have evolved the position of the single-mother in society. She no longer resides in the fringes of society. Instead, she has become deeply embedded within it. Single, adult mothers still receive harsh criticism from some, but garner praise and admiration from others. However, the single, teenage mother continues to receive scorn and judgement from most bystanders.

Many choices must be made for teenage pregnancy to occur. However, an alarming rate of teenage pregnancy still occurs yearly. The Ontario Ministry of Health and Long-

Term Care states that “Teen pregnancy rates have been on the decline in Canada in the last 25 years, with significant variation across provinces and territories. However, teen pregnancy has continued to be of significant concern in specific populations including socio-economically disadvantaged teens.”<sup>6</sup>

In society, the teenager holds a vastly different position than in the past. The teenager’s priorities no longer focus on marriage and child-rearing have shifted to focus on education and employment. Subsequently, when a teenager becomes pregnant, it overthrows the norm and forces the (often) unwed mother into the role of “the outsider”.

Since the teenager no longer fits into the adult realm of society, the pregnant teen, or teenage mother, sits even further outside of it. Coupled with a high rate of inflation, the teenage mother must not only provide for her child, but do so without the economic assistance of a husband and/or partner in an inflated economy. Statistics Canada examines the economic hardship of the single parent in today’s society.<sup>7</sup>

Teenage pregnancy also has economic consequences. Childbearing may curtail education and thereby reduce a young woman’s employment prospects in a job market that requires ever higher levels of training. In addition, recessions in the early 1980s and 1990s meant that to maintain an adequate standard of living, dual earning became the norm in many Canadian households. But teenagers who give birth, particularly at ages 15 to 17, are likely to be single. Consequently, most teenage mothers lack a partner to contribute to the household income.

Heather Dryburgh  
Statistics Canada



*fig. 7.* Photographs of St. Louis students, as seen from Beverly Street.

Mothers must feed and care for children during a time where the cost of food and general cost of living are on the rise. The government provides minimal funding for single, teenage mothers.<sup>8</sup> This forces many young women directly into the workforce to earn sufficient income to support their families. Without an OSSD, however, job opportunities decrease over time. Without a certain level of education, teenage mothers reach a ceiling in the workplace. The emotional highs and lows of raising a child while still essentially a child cannot be easy to deal with. Time rarely allows for play. When time does open up, it centres around the child, rather than the mother.

Huizinga emphasizes the impact of play in society. The impact does not stop with the child; it extends to single mothers, and all adults. Play must be present in order for the mother to maintain a balanced life, and raise her child to have one, as well.

D.W. Winnicott practiced as a child psychiatrist and physician from 1923-1963 before his death in 1971.<sup>9</sup> During that time, he treated children diagnosed with mental health issues, their families and support groups. Winnicott emerged as an early advocate and practitioner in the field of play therapy. He published *Playing and Reality* in 1971, an educational tool that also outlined many of his successes in his play-therapy practice.<sup>10</sup>

Winnicott encouraged children to play during his sessions in order to create a comfortable environment in which they would be open to sharing their thoughts and feeling with him. Winnicott observed his patients' tendencies to play with objects, and noticed that they would manipulate the object to convey their own meaning and feelings. He understood play to extend

through to the objects the players interacted with, and observed the creativity they used when interacting with these objects. Winnicott found play to be a highly effective therapeutic tool in his practice.

Winnicott also asserts that play is an essential aspect of life and the child's development and well-being. Winnicott describes creativity, the expansion and exploration of a topic within the mind sits as the fundamental aspect of play.<sup>11</sup>

It is in playing and only in playing that the individual child or adult is able to be creative and to use the whole personality, and it is only in being creative that the individual discovers the self.

D.W. Winnicott  
*Playing and Reality*

In this creativity, the mother and child both explore themselves, and their relationships between one another and their surroundings. The discovery of the self leads to the integration of infinite play in the mother and child's lives.

North American elementary schools celebrate play both inside and outside the classroom. They exude optimism, from glittery crafts to coloured climbing structures. St. Louis, however, does not share the same bright outlook and optimistic environment. This provides an alternative environment for the exploration of infinite play amongst adults. The school contains individuals with a troubled past. Many attend the school for a second chance to succeed at school, work and life. The play-space attempts to aid in their success.

The proposed intervention at St. Louis does not exist in a place of inherent optimism, but one that comes with a side of skepticism. The ‘typical’ play-structure that most North Americans grew up engaging with provides the player a sense of familiarity, not a sense of excitement. The movement and exhilaration possible from the swings, monkey-bars or turnstiles of the postwar era has been eclipsed by the stringent rules and regulations that have changed the adventure playgrounds of the 1960s into liability-free play apparatus. The typical playgrounds provide the players with opportunities for active, but not creative, play. Creative play leads to infinite play.

A play-space at St. Louis would proliferate activity, and exploration and infinite play on the school’s grounds. This new space aims to instill a sense of wonderment in the players which will lead to continued investigation and experimentation in movement and use. It would provide simultaneous respite and adventure for the single mothers. These women need play in their lives and the lives of their children. The insertion of play returns play to the forefront of consciousness and integrates it with the site. Education and play fuse together. The school integrates itself with the downtown core, and establishes itself as a new cultural node within the city fabric.

Introducing lightness into darkness; play into seriousness; joy into despair.

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## I n f i n i t y   o f   P l a y

James Carse's *Finite and Infinite Game*

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I have played. I have engaged in infinite games throughout my adolescence and young adulthood. I have played throughout University and Co-operative educational placements. Had I become a mother at 18, I fear my life would be largely without play. Without the knowledge acquired through play, my life would be a finite game, with my child as the very finite boundary to limit my actions. The rules of the game would be structured to ensure the child's welfare and success, rather than my own. The purpose of the game would be the accomplishment of that goal, rather than the continuation of my own play.

I do not mean to imply only negative connotations towards teenage mothers. In fact, the opposite holds true. However, I question the absence of play amongst teenage mothers. The child, not negatively or positively, becomes a boundary that creates a finite game, rather than allowing the memory of childhood to act as the shifting boundary of infinite play.

The process of writing a thesis is one of infinite play. The more research I conducted, the more it expanded and unfolded in front of me. I did not initially know where it would take me, but I followed it openly and freely. Through research, I have explored and played, and acquired new play-mates along

the way. I have become immersed in the theories of Johan Huizinga, James Carse, and the architectural theories and designs of Aldo van Eyck. Through my research, they have become my play-mates.

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Theologian and historian James Carse, author of *Finite and Infinite Games* (1986), bases his text on the central argument that “there are at least two kinds of games. One could be called finite, the other infinite. A finite game is played for the purpose of winning, and an infinite game for the purpose of continuing play.”<sup>1</sup> While finite games favour the outcome, infinite games favour the process.

James Carse wrote *Finite and Infinite Games* from the perspective of a non-religious theologian. This perspective permitted Carse to understand play on its broadest level, while still identifying specific instances and examples of finite and infinite games. Carse inserted play into all aspects of life. However, he differentiated between finite and infinite games, and their respective significance. Carse eschewed history and wrote in the present. He focussed on the action and interaction inherent in play.

By de-historicizing play, Carse examined it through consciousness and direct experience rather than through an historical lens. He presented a clear distinction between finite and infinite games. Finite games exist in order to produce a

clear winner, whereas infinite games exist in order to continue play.<sup>2</sup> The simplicity of the statement belies the complexity of the argument. Carse placed his argument outside of history and in the present. This context established play in the readers' own life, rather than understanding play's significance through an historical context. The book became a playful entity that encouraged the reader to explore and to play.

Carse bled his biased opinion into his argument. He focussed on the ephemeral experience of play, rather than the concrete prize of winning a game. Written in the mid-1980s, Carse challenged the business and materialistic mindset of the era, where winnings and possessions prevailed. Carse shifted his view towards the intangible world of play, where actions - business, pleasure and otherwise - do not result in a tangible end. Carse instead focussed on the means. *Finite and Infinite Games* focussed on the present.

Finite games contain a specific set of rules that play out in time and space.<sup>3</sup> Finite regulations govern finite games. Once transgressed, these boundaries declare a winner and loser. Finite games come to determine conclusions. Infinite games shift the boundaries and rules in relation to the player in order to perpetuate play.<sup>4</sup> Carse identifies the horizon as the boundary of an infinite game. It defines itself as a solid, tangible line that always remains out of reach. The horizon moves with the player, which keeps the player always within the game's boundaries. This promotes exploration and discovery, continually striving for a boundary that will always remain illusive. A border is finite. The horizon is infinite.<sup>5</sup>

One never reaches a horizon. It is not a line; it has no place; it encloses no field; its location is always relative to the view. To

move toward a horizon is simply to have a new horizon. One can therefore never be close to one's horizon, though one may certainly have a short range of vision, a narrow horizon.

James Carse  
*Finite and Infinite Games*

Infinite play extends beyond the finite game at hand. Life is an infinite game whose end is not death. Death marks the end of play for a single player, though their contributions to the game outlast their own mortality.<sup>6</sup> This emphasizes Carse's point on the importance of the present, the importance of the individual.

Time becomes another boundary that shifts with the player. It continually reveals something new, and encourages the player to perpetuate play. Time concretizes a game; a contest must be played out in a certain time to declare a winner. Infinite games do not rely on time in its limiting capacity, but rather, the players' ability to suspend time and chase the horizon.<sup>7</sup>

Infinite players cannot say when their game began, nor do they care. They do not care for the reason that their game is not bounded by time. Indeed, the only purpose of the game is to prevent it from coming to an end, to keep everyone in play.

James Carse  
*Finite and Infinite Games*

We, as adults, have lost much of the innocence and naiveté of our childhoods. Though that may never be regained, we may strive to reach a point where we may play freely like children, and intelligently as adults. We must get back to the playful instincts of the child. Society trains adults to regard play in its

most finite form. Adults must get back to revering play rather than ridiculing it. James Carse notes the importance of choice in play:<sup>8</sup>

Although it may be evident enough in theory that whoever plays a finite game plays freely, it is often the case that finite players will be unaware of this absolute freedom and will come to think that whatever they do they must do.

James Carse

*Finite and Infinite Games*

Adults often restrict their own actions with fear of judgement from others; fear of appearing foolish, childish. The constraints of society, of norms and expectations, shackles behaviours and adults' playful instincts.

Johan Huizinga, James Carse, Aldo van Eyck and D.W. Winnicott all acknowledge and defend the importance of play in adult societies. These theorists all considered play as a critical and necessary aspect of daily life. Winnicott notes that "playing is an experience, always a creative experience, and it is an experience in the space-time continuum, a basic form of living."<sup>9</sup>

For a single mother, the child becomes her horizon, the shifting boundary always out of reach. Once we have passed through childhood and into adulthood, the allure of innocence and ease remains in hindsight. Most adults reflect on childhood with a sense of nostalgia. They remember the simplicity and lack of responsibility it came with. Children have a narrow cone of vision which alters their perspective of the world, and through it, the act of play maintains a large role. Once the child becomes an adult, their perspective widens, and the



*fig. 8.* Sketch of typical North American playground.

adult relegates play to hold a much smaller amount of time, effort and importance. However, play should grow with the individual. The importance of play does not diminish, though adults often push play aside in favour of more “serious” or “important” tasks.

Games played in childhood become another boundary for play. The memory of games played acts as a reference point and boundary for the game. Looking backwards also projects forwards, and the player becomes the centre of his projections and memories. Without the experience of play as a child, the adult does not have a benchmark of freedom, of limitlessness against which to judge or match his current abilities. They do not dictate use or limit creativity. Infinite play-spaces provide opportunities. D.W. Winnicott states that prior experiences of play create a boundary around the individual and his current experience of play.<sup>10</sup>

Playing and cultural experience are things that we do value in a special way; these link the past, the present, and the future; they take up time and space. They demand and get our concentrated deliberate attention, deliberate but without too much of the deliberateness of trying.

D.W. Winnicott  
*Playing and Reality*

The place of play becomes a breeding ground for interaction, engagement and events; the physical space serves as a mnemonic device for the events and actions it supports.

*Finite and Infinite Games* categorized play into its most basic forms. Typical, North American playgrounds support finite games. Passive play, where the apparatus moves while the player remains still is a finite game. The Sonsbeek Pavilion, with its labyrinthian plan, or van Eyck's oeuvre of work, provides spaces for infinite play; spaces that encourage the pursuit of the horizon, rather than the transgression of a boundary. The difference between crossing a finish line and continuing to explore a site after the game had ended.

The production of an infinite game comes from the player, rather than the space. The space acts as a catalyst, a horizon line to be chased. When a space dictates use, it becomes a catalyst for finite play. Infinite play-spaces support myriad activities rather than a single, defined one.

Infinite play must be approached and undertaken freely. Without freedom, the play may not exist.<sup>11</sup> Each player not only takes on a role, but understands that he submits to the rules and attached norms while acting within it.<sup>12</sup>

From the outset of finite play each part or position must be taken up with a certain seriousness; players must see themselves as teacher, as light-heavyweight, as mother. In the proper exercise of such roles we positively believe we are the persons those roles portray. Even more, we make those roles believable to others.

James Carse

*Finite and Infinite Games*

Infinite play surprises the player. The changing rules and boundaries provide space and time for surprise within the infinite game. Finite players prepare, so as not to be surprised within the course of play. Infinite players prepare to be surprised, without

anticipating the outcome. Carse emphasized the importance of exploration and surprise to infinite play.<sup>13</sup>

Infinite players, on the other hand, continue their play in the expectation of being surprised. If surprise is no longer possible, all play ceases. Surprise causes finite play to end; it is the reason for infinite play to continue.

James Carse  
*Finite and Infinite Games*

The perpetual newness of exploration braced the players for surprises while they played. It trained the players to expect the unexpected, rather than knowing the outcome before it occurred. Infinite games do not have outcomes; the play continues as space and time unfolds around the player.

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## R u l e s o f P l a y

Johan Huizinga's *Homo Ludens*

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I have played. From childhood to the present, reading has always been a source of play and joy in my life. When I read for pleasure or for educational purposes, I always get lost in the text. I become immersed in the words and ideas on the page.

As an infinite game, reading perpetuates one's imagination and interest; it creates continuous exploration on behalf of the readers. The emphasis on exploration and creativity puts the player at the centre of his own outcome, rather than relying on the rules of a specific game to dictate the result. In an infinite game the player does not win or lose. He *plays*.

The act of reading is an infinite game. The outcome, finishing a piece of text, matters less than the information gleaned from its content. If reading is an infinite game, then the library becomes its infinite play-space. The library houses the information, but the reader brings the ideas to life. It becomes a place of opportunity and exploration, of surprise and anticipation. The books hold the words that influence a player's actions and direction. As the sole player when reading, the text takes on the role of a benign piece of playground equipment that allows the reader to bounce off of it, and reinterpret it to suit his own needs. The act of reading is creative play. The discovery

of Aldo van Eyck's work led to the discovery of Huizinga's and Carse's. All of these playmates sat idle in the library. Idle until uncovered, they awaited a playmate to bring them to life.

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Dutch historian Johan Huizinga (1872-1945) was an historian of cultural history. He studied Sanskrit and wrote his thesis on the place of the Jester in Indian Drama.<sup>1</sup> Huizinga parlayed his knowledge of the jester within the drama into his own theories on culture. Huizinga acknowledged play as a formative and pervasive element of culture. Play in society acted as Huizinga's jester in the drama. His book, *Homo Ludens*, examined play as it influenced and adhered to all aspects of culture: education, the arts, philosophy, war.

Prior to his publication of *Homo Ludens*, Huizinga wrote *Erasmus of Rotterdam* in 1924.<sup>2</sup> Erasmus, the Humanist author and theologian of the early 16th century, asserted the influence and importance of folly within the seriousness of the Renaissance society. He, too, found an ironic perspective; a satirist when most of his contemporaries wrote with severity and gravity in their words. In *Homo Ludens*, Huizinga argued that play may take on the utmost seriousness, no doubt influenced by Erasmus' perspective centuries earlier, or by the position of the Jester within Indian drama.<sup>3</sup>

What was wordless play assumes poetic form. In the form and function of play, itself an independent entity which is senseless

and irrational, man's consciousness that he is embedded in a sacred order of things finds its first, highest, and holiest expression. Gradually the significance of a sacred act permeates the playing. Ritual grafts itself upon it; but the primary thing is and remains play.

Johan Huizinga  
*Homo Ludens*

Again, play finds its way into dark crevices of history and culture. Again, play becomes a silver lining, a beacon of hope that changes even the most serious events into a game to be earnestly acted out.

Huizinga negotiated the concept of play as an integral element of culture. The subtitle of his book *Homo Ludens, the Play Element of Culture*, signifies as much. Huizinga identified play as a vital aspect of even the most basic societies, and heralds its importance. In the Introduction to *Homo Ludens*, George Steiner summarizes Huizinga's main arguments.<sup>4</sup>

Play, as Huizinga defines it 'is an activity which proceeds within certain limits of time and space, in a visible order, according to rules freely accepted, and outside the sphere of necessity or material utility. The play-mood is one of rapture and enthusiasm, and is sacred or festive in accordance with the occasion. A feeling of exaltation and tension accompanies the action, mirth and relaxation follow.' Seriousness is, most emphatically, not the opposite of play. Play can be, and very frequently is, of the utmost seriousness. Thus the cheat is far less hated or chastised than the spoil-sport, the man who somehow subverts and shatters the validity, the importance of the game. It is difficult, says Huizinga, to find any word which embodies the antithesis to play.

But this may be an important pointer: seen in its full breadth and dynamism, play can be found 'at work' in almost every aspect of civilized behaviour and social structure. Its only opposite is the negative category 'non-play'.

George Steiner  
*Homo Ludens*

Huizinga examines play from a purely historical context as it relates to culture; historical events and situations. Throughout the document, Huizinga explores various ways play has influenced world events, opinions and actions. Written just before the Second World War commenced and not long after the conclusion of the First World War, Huizinga explores play from this vantage point. With a chapter dedicated solely to 'Play and War', Huizinga identifies the influence of the war on his own perspective.

*Homo Ludens* contains the subtitle *A Study of the Play Element in Culture*. Huizinga, though writing before Carse, takes the study of play and roots it firmly in a context. He argues that play must occur in both time and space, a fixed position with fixed rules and regulations. As the primary requirements for play must be tangible but not produce tangible results, rather than Carse's notion of shifting boundaries, play becomes embedded in the present.

Huizinga finds occurrences of play in history, and society - primal societies to his most recent observations of the atrocities of World War I. He takes on an ironic perspective - how play may be found even in the darkest of human actions; how war makes use of the same rules of play as a child's game does. The boundaries, adherence to rules, inherent freedom and separation from 'real life' hold true.<sup>5</sup>

Play begins, and then at a certain moment it is 'over'. It plays itself to an end. While it is in progress all is movement, change, alternating, succession, association, separation. But immediately connected with this limitation as to time there is a further curious feature of play: it at once assumes fixed form as a cultural phenomenon. Once played, it endures as a new-found creation of the mind, a treasure to be retained by the memory. It is transmitted, it becomes tradition. It can be repeated at any time, whether it be 'child's play' or a game of chess, or at fixed intervals like a mystery. In this faculty of repetition lies one of the most essential qualities of play.

Johan Huizinga

*Homo Ludens*

Play remains a vital aspect of culture. Huizinga does not separate play from culture. To Huizinga, play *is* culture.<sup>6</sup> The influence of play spreads far beyond a child's game into all aspects of daily life. It is hopeful, then, that the influence of an infinite play-space into the vacant space around the St. Louis school will provide a similar effect. The influence of play stretches only as far as the physical boundaries one places on it.

Huizinga states that play must be bound by time and space, and that the player(s) must all agree upon and adhere to a specified set of rules. Huizinga extrapolates play from a child's game through all elements of culture. Law, war, education and theatre all receive Huizinga's playful analysis. The formal rules that comprise any game hold true through these varying examples.<sup>7</sup>

More striking even than the limitation as to time is the limitation as to space. All play moves and has its being within a playground

marked off beforehand either materially or ideally, deliberately or as a matter of course. Just as there is no formal difference between play and ritual, so the 'consecrated spot' cannot be formally distinguished from the play-ground. The arena, the card-table, the magic circle, the temple, the stage, the screen, the tennis court, the court of justice, etc., are all in form and function play-grounds, i.e. forbidden spots, isolated, hedged round, hallowed, within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart.

Johan Huizinga  
*Homo Ludens*

Reading fits into Huizinga's description of play. While reading, one occupies a specific place, both intellectually and physically. The reader creates a space wherein he becomes absorbed by the information parlayed through the text. The rules of language must be followed by both reader and text in order to fully absorb the information being presented. Should the rules be broken, for example - a reader does not understand the vocabulary or language of the text - the transfer of information may never occur. The game never comes into fruition; it never produces an outcome. Huizinga places play on a pedestal, while simultaneously throwing it into society's trenches. He asserts that play acts as an organizing and predominant function of culture, while maintaining that it touches upon all of life's activities, no matter how dignified or uncouth.<sup>8</sup>

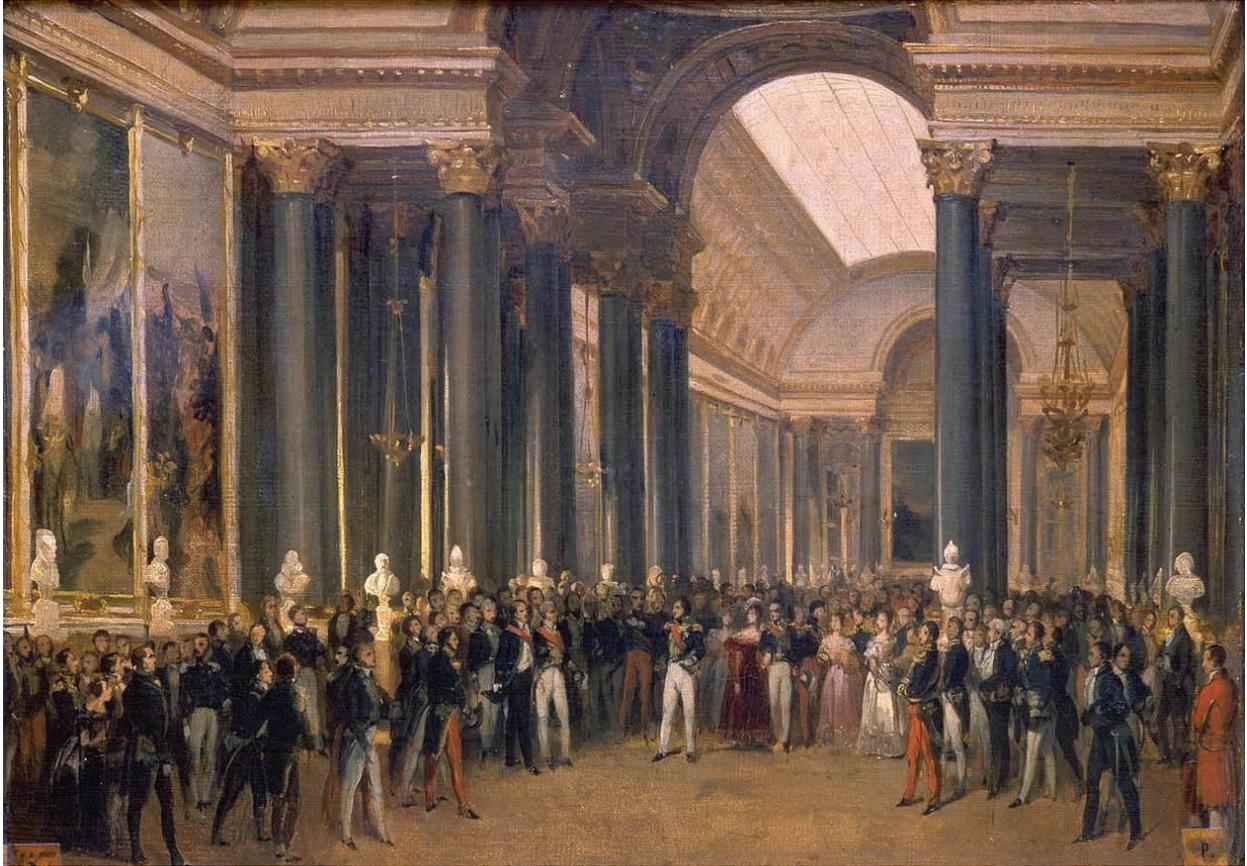
Huizinga examines the spatial relationships and architectural implications inherent in play. Physical boundaries create hierarchies necessary for participation in a finite game. "Play

is distinct from 'ordinary' life both as to locality and duration. This is the third main characteristic of play: its secludedness, its limitedness. It is 'played out' within certain limits of time and place. It contains its own course and meaning."<sup>9</sup> Without specific and precise lines and perimeters, a sports game could not declare a victor. The game would fail to even exist without these finite boundaries.

Play exists as a basic tenet of culture. Play influenced culture and architecture bowed to create the spaces to accommodate it. The entire system of class structure existed as an infinite game. A symbiotic relationship between design and culture provided the physical boundaries within which play could occur. In baroque court, the social hierarchy dictated the distance one could move through a long, choreographed sequence of spaces. All classes acknowledged and followed these established rules, and spaces were constructed to support and perpetuate the game. Palaces, gardens, and courts consisted of grand entrances, hallways, anti-chambers, parlours, salons and great halls to extend the cultural game into the physical realm.

Once these rules did not fit with the rising majority political consciousness, the French Revolutionaries became the spoil-sports of European Baroque culture. They exposed a culture that had so deeply entrenched itself in the minds of the citizens for generations as merely a game. The spoil-sports eventually created their own game, with new rules to be followed. The old, rebellious rules became the norm, and new boundaries and architectural derivations to support the action followed by way of Georges-Eugène Hausmann's boulevards that cut new, democratic swaths through the old city of Paris.

Huizinga states that players revile the spoil-sport far more than the cheat. The cheat acknowledges the rules and



*fig. 9.* Painting of Louis-Philippe Opening the Galerie des Batailles, 10 June 1837 by Heim, Francois-Joseph (1787 - 1865), inside the Palace of Versailles. Painting depicts the long, narrow rooms of Baroque Court, and the social hierarchy they supported.

blatantly acts outside of them. The spoil-sport, however, ruins the game by deriding the rules themselves, making his fellow players appear foolish for following them at all. The player understands and acknowledges the importance of play to society, and understands the implications of staying within, straying from, or completely eschewing the rules.<sup>10</sup>

It sometimes happens, however, that the spoil-sports in their turn make a new community with rules of its own. The outlaw, the revolutionary, the cabbalist or member of a secret society, indeed heretics of all kinds are of a highly associative if not sociable disposition, and a certain element of play is prominent on all their doings.

Johan Huizinga  
*Homo Ludens*

Play occurs on all scales from a child playing with a toy through to a cultural revolution that shook a continent and permanently changed the course of the world's culture.

Johan Huizinga states that "Genuine, pure play is one of the main bases of civilization."<sup>11</sup> However, North American adults have largely lost their ability to play freely. Instead, most consider play as a childish or immature act. Their innocence has been lost, and been replaced with self-consciousness and a need to conform. Children play instinctively, not bound by the societal pressures or conventions that shackle adults. Children play with ease and energy, qualities most adults lack. Perhaps this condescension towards play by adults reflects a jealousy of

children and their ability to play, imagine and act creatively as they so choose, not bound by protocols, norms and rules.

D.W. Winnicott emphasizes the importance of creativity in play, and the symbiotic relationship the two have. Creativity allows the player to turn inwards and find their own playful impulses.<sup>12</sup>

The creative impulse is therefore something that can be looked at as a thing in itself, something that of course is necessary if an artist is to produce a work of art, but also as something that is present when anyone - baby, child, adolescent, adult, old man or woman - looks in a healthy way at anything or does anything deliberately.

D.W. Winnicott  
*Playing and Reality*

This proliferation of creativity does not occur in a finite game, where the rules must be followed in order to proclaim a winner. Instead, finite games often shun creative players in favour of those who adhere strictly to the outlined rules. Creative play inherently composes infinite play. The lack of rules or defined spaces implies an imaginative outlook from the players; an outlook required to continue the playing an infinite game.

The shapes, colours and forms of typical playground equipment can evoke memories of play. Generic playgrounds act as visual catalysts for collective memories. Typical play structures are easily identifiable. In their generic forms, memories of childhood games played may be projected. Specific games or activities or a general recollection of play may be recalled. This

may bring a sense of nostalgia for those easier, earlier days of childhood play.

Recollection of play brings about a recognition and appreciation for childhood, an awareness of what's missing in their adult life, and what came so naturally during childhood. As adults encounter play, a sense of nostalgia enables the adult to play as a child, at least for a short while, in the hopes of recovering some lost innocence and joy. Once self-consciousness sets in, play ceases as quickly as it began. Winnicott observed this occurrence in his patients. The theory carries through from children to adults. The moment self-consciousness occurs, play ceases. "When a child is playing the physical excitement of instinctual involvement becomes evident, then the playing stops, or is at any rate spoiled."<sup>13</sup>

Adults strive to get back to the innocence, fun and freedom of childhood. They seek play in alternate environments, most often through finite games. Huizinga notes that adult play brings with it a natural beauty when it expresses pure feelings of joy.<sup>14</sup>

Although the attribute of beauty does not attach to play as such, play nevertheless tends to assume marked elements of beauty. Mirth and grace adhere at the outset to the more primitive forms of play. In play the beauty of the human body reaches its zenith. In its more developed forms it is saturated with rhythm and harmony, the noblest gifts of aesthetic perception known to man.

Johan Huizinga  
*Homo Ludens*

The young mothers at St. Louis have lost their adolescence, skipping from childhood to adulthood in a matter of months.

They bear the responsibility of caring for another individual, a heavy burden to carry, the weight of which undoubtedly lasts through the remainder of these women's formative years. Play allows adults, especially these women, to get back to a place of freedom and joy.

The reliance upon instincts, rather than an overthrowing of social conventions, allows adults to become more comfortable with the idea of play, and more inclined to participate in unstructured, infinite play. Huizinga argues that play has its grasp on all aspects of culture. It should be accepted into our lives rather than ridiculed. Play already exists within our collective consciousness; it is time to bring it to the forefront. Life then opens up as an infinite game, rather than a series of finite ones.<sup>15</sup>

Summing up the formal characteristics of play, we might call it a free activity standing quite consciously outside 'ordinary' life as being 'not serious', but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner. It promotes the formation of social groupings which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means.

Johan Huizinga  
*Homo Ludens*

With play as an integral aspect of life, joy replaces the seriousness attributed to daily tasks and routines. The player, the young mother, becomes less preoccupied with completing

a task or winning a game, and instead focusses on perpetuating play throughout all facets of life. For the teenage mother, a lighter, more joyful outlook may serve in good stead, however, a lighter countenance benefits all people.

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## Nature of Play

*Friedrich Froebel's Kindergarten Theory*

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I have played. I have played in University, and throughout my education. Education is an infinite game; the pursuit of knowledge is never-ending, and continues as the player pursues it throughout his lifetime. It does not stop once a diploma or degree has been earned.

University, then, is an infinite game, comprised of several finite courses in an environment that encourages learning and growth over time. Knowledge is infinite. The concrete milestones one reaches in its pursuit are finite. A positive attitude towards learning has been instilled upon me during my years at the University of Waterloo School of Architecture. Time spent at there has allowed for play in both finite and infinite circumstances.

Throughout school, each assignment and exam provided an overall assessment and grade. Within the School of Architecture, these finite courses contributed to the larger, infinite game. The finite courses exist within the infinite organization of a University education.

Tape, glue, wood, fabric, plastic, metal, screens, crayons, markers and pencil are the tools of the architecture student at work in the design studio. They are also the tools of a

kindergarten student working on a craft. However, for both the architecture student and the kindergarten student, the process remains similar and playful. The difference in attitude. The architecture student considers the game to be more of a serious undertaking; the kindergartner approaches the same set of materials with whimsy. Huizinga understands the importance of losing inhibitions and self-consciousness when engaging in play. “When art becomes self-conscious, that is, conscious of its own grace, it is apt to lose something of its eternal childlike innocence.” (JH 229) The same set of parameters can produce both finite and infinite play. The player chooses how he will approach play, and which type of game he will choose.

The infinite nature of design and research favours possibility over teleology. In each design studio, every student offered a unique solution to the same problem offered a different solution. Huizinga places the process of design as an infinite game, the students becoming the players.

The University is a site of play, infinite exploration and discovery. At UWSA, I have been given the opportunity to play both in school and in the workplace on Co-op placements. The same pens, crayons, markers, wood, metal and plastic that I played with in the studio, I also played with in the office. The extension of play into the profession renders work not as a serious, finite game, but one that returns to a lighthearted and playful state. It brings my education, and knowledge, into other aspects of my life. It perpetuates the infinite game of education.

As an architecture student, I have had ample opportunities to play both in and outside of school. The studio, with its model-making and drawing supplies, along with the design process as a whole, brings a playful atmosphere into a learning

environment. Like Friedrich Froebel's blocks, the integration of tactile materials and learning through creating has reinforced a playful approach within an educational environment. Similarly, the tools and approaches within the workplace, as experienced while on co-operative education placements has promoted play within the professional environment, as well.

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Along with Carse, Huizinga and van Eyck, I have played with the texts of other authors. Friedrich Froebel has served as an additional playmate during this thesis exploration, albeit not as influential as Carse, Huizinga and van Eyck.

Beginning in 1831, Friedrich Froebel began educating children in the kindergarten system that North Americans understand today. Froebel grew up in a community with a deep connection to nature. He began his career as a botanist, then became a land surveyor prior to enlisting in the German Army and fought against Napoleon's army. Froebel's connection to nature emerged from his upbringing, and heavily influenced his pedagogical approach.

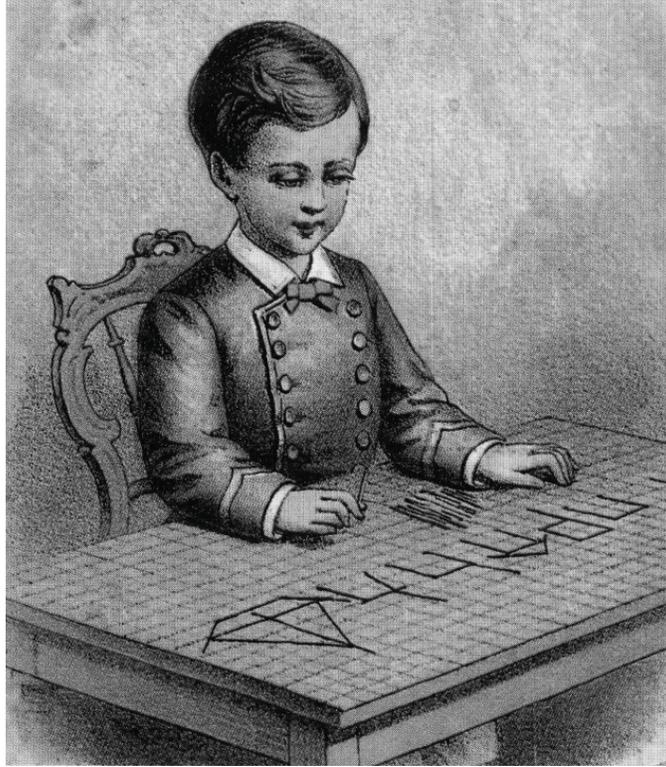
Froebel removed history, and, more importantly, religion from his teaching. He focussed instead on geometry, nature, and the child itself. Froebel brought delight into the classroom, a change from the severe and serious tone of early nineteenth-century religious education.



*fig. 10, 11.* Iconic Froebel gifts of a cube, cylinder and sphere. Children balancing these gifts.

The shift in focus opened the opportunities and tools for classroom education. Froebel created a series of “gifts” followed by a series of “occupations”.<sup>1</sup> Each gift or occupation contained an object (or set of objects) designed to teach the child an educational lesson that increased in complexity as the student moved through Froebel’s system. The gifts used naturally finished, solid wood to create blocks of standard geometries such as cubes, spheres, triangles. Successive gifts in the series consisted of smaller shapes that together equalled one of the original forms. The occupations also came in wrapped boxes, though the occupations consisted of geometrically complex, natural objects such as seeds, shells and pine cones to teach more sophisticated lessons to older students.

Parents or teachers would bestow one of these gifts in a wrapped box to the student after he reached specific academic milestones. The elder formally presented the gift of education and play to the student. Froebel used gifts to encourage his students to savour the learning process. The classroom became their playground, and the blocks their toys. Each student sat at a desk with a gridded top.<sup>2</sup> The grid provided a canvas on which the students arranged their blocks. However, once placed, the student could not relocate the block. This taught the students lessons of geometry, but also of consequences. The arrangements, then, grew radially from a central point. The patterns the students could create became more and more complex as the students received each successive gift in the series. The student could invent his own designs within the gridded play-space. The table bound the infinite possibilities, but the shapes and the child’s imagination did not.



*fig. 12.* Froebel's student arranging one of his gifts on his gridded desktop.

Froebel's blocks became a tactile, effective way to foster childrens' creativity and imaginations. Winnicott understood the importance of childrens' tactile relationship with objects.<sup>3</sup>

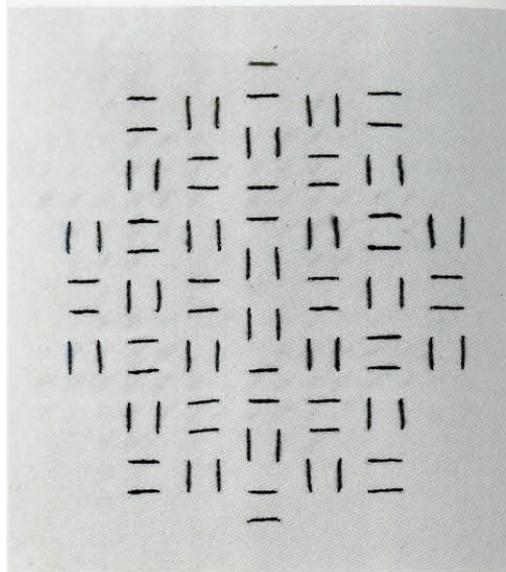
A capacity to use an object is more sophisticated than a capacity to relate to objects; and relating may be to a subjective object, but usage implies that the object is part of external reality.

D.W. Winnicott  
*Playing and Reality*

The gridded table set up a set of rules and parameters within which a game may play out. Additionally, the geometric shapes also contain their own set of inherent properties. The synergy between the forms of the blocks and the suggestion of the gridded table creates a set of formal rules that the player may follow, though the player may also choose to eschew the rules and break through the grid. Without a grid present, Froebel feared the students would become paralyzed by the infinite opportunities afforded by a completely blank slate. The grid afforded rules that could then be broken.

The patterns created by the objects laid down on the gridded table resembled the abstract art that greatly influenced Aldo van Eyck's spatial planning. Objects inserted into white space creates a tension between the objects and the site, the objects and one another. The simplicity of the shapes coupled with the child's imagination generated an infinite number of patterns and designs. Similarly, van Eyck created hundreds of unique playground plans using combinations of simple, geometric elements.

The blocks' basic forms provided the students opportunities to create abstract patterns. The simplicity of form allowed the



**fig. 13.** Top: Form created by Abbie A. Herrick, Froebel's Student made from 12th gift, 1875.  
**fig. 14.** Bottom: *Composition 10 in Black and White (Pier and Ocean)*, 1915.

child's imagination to expand, and allowed block play to enter into infinite play. Froebel intended to perpetuate the enthusiasm and delight of learning as encountered in his classrooms into each child's enthusiasm for learning throughout his life.

Van Eyck's playgrounds contained minimal apparatus, but they were not completely barren. We require a semblance of finite within the infinite, if only as a catalyst to act against. Finite boundaries provoke infinite play. Carse states that rules provide possibilities within the play-space, and ways to break through the boundaries as they shift with the player. When the rules remain too rigid, finite play results.<sup>4</sup>

If the rules of a finite game are unique to that game it is evident that the rules may not change in the course of play - else a different game is being played. It is on this point that we find the most critical distinction between finite and infinite play. The rules of an infinite game must change in the course of play. The rules are changed when the players of an infinite game agree that the play is imperiled by a finite outcome - that is, by the victory of some players and the defeat of others.

James Carse

*Finite and Infinite Games*

Froebel blocks, still in limited production, have fallen out of favour in North American kindergartens. Today's pedagogical focus now favors action figures, dolls, even computer games as toys for children within the classroom, and prescriptive play-structures outside of the classroom. Finite games have replaced infinite play inside and outside of today's classroom.

Froebel blocks allowed the child's imagination to become the player in an infinite game of learning and exploration



*fig. 15.* Froebel integrated play inside and outside of the classroom. The garden outside of a Froebel-educated Kindergarten becomes a lesson in geometry as well as the natural processes of gardening.

through block play and pattern making. Froebel's grid acted as a microcosm of van Eyck's future playground designs. In both cases, both child and adult became transfixed by the openness and possibilities of play.

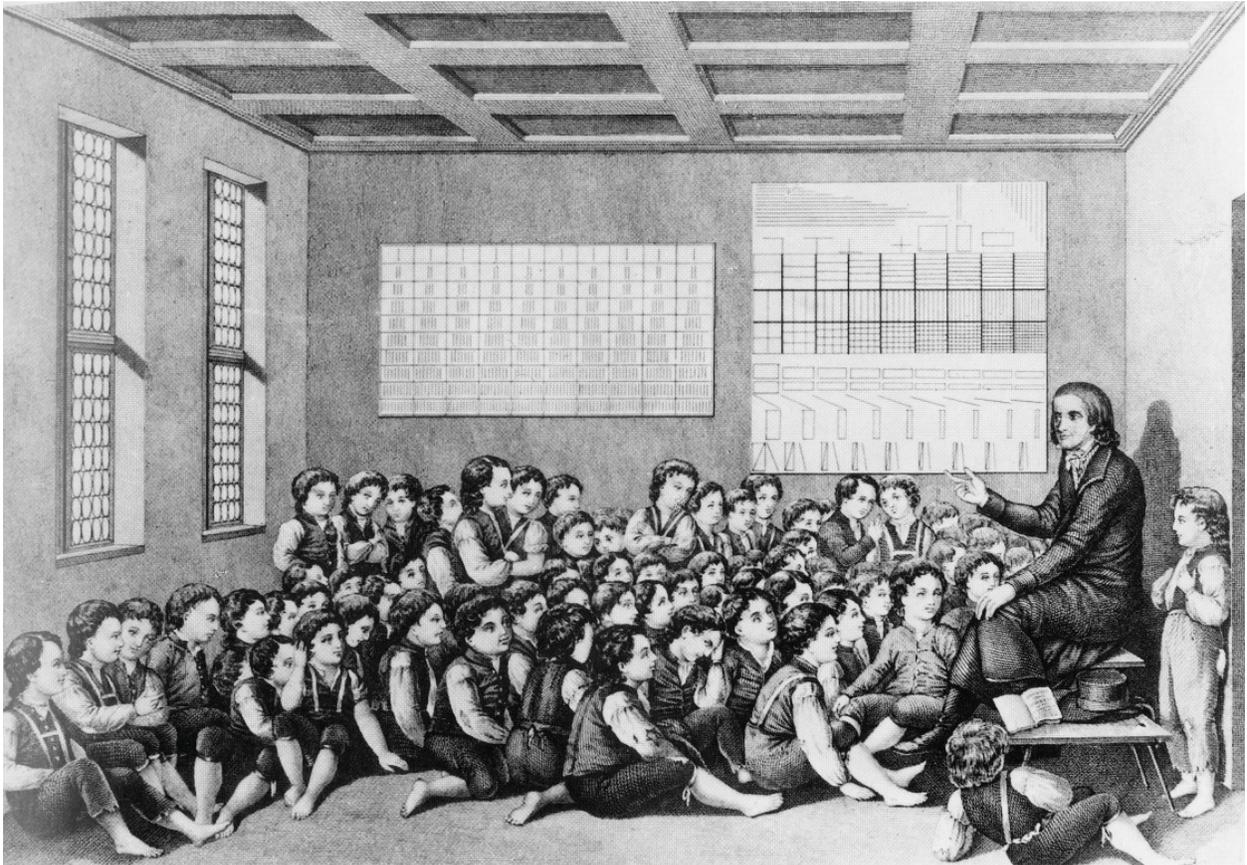
Friedrich Froebel integrated play into the learning environment. He focussed on the synergy between education and play, seriousness and joy. Play provides learning opportunities both inside and outside of the classroom. The student tests himself physically and intellectually, learning from shortcomings, or risks taken that went positively or awry.

Froebel's gifts and occupations encourage play through action. The simplicity of the blocks' forms encourages the student to impose his own creativity onto the object. The object acts as a catalyst for play, and encourages the student to project his opinions onto the object, rather than the inverse. These objects impose prescribed play based on their highly articulated forms. The simple shapes of the Froebel blocks open up possibilities for creative play. Winnicott expresses the importance of the relationship between subject and object.<sup>5</sup>

The place where cultural experience is located is in the potential space between the individual and the environment (originally the object). The same can be said of playing. Cultural experience begins with creative living first manifested in play.

D.W. Winnicott  
*Playing and Reality*

Froebel introduces play, and subsequently culture, to the lives of his students.<sup>6</sup> His pedagogical approach aims to instill a sense of creativity of the mind as manifested in object-manipulation.



*fig. 16.* Early Kindergarten classroom. Grids on far wall indicating various gifts and stacking permutations.

By doing so at a young age, creative play may continue through the students' adult lives. Froebel emphasizes the understanding of natural processes through the child's interaction with the gifts and occupations.

Carse describes nature as an infinite game, and an infinite play-space.<sup>7</sup> Nature constantly evolves, and never remains static. Its growth shapes and reshapes its boundaries and the rules associated with it over time. Yet, it always remains the same. "Our freedom in relation to nature is not the freedom to change nature; it is not the possession of power over natural phenomena. It is the power to change ourselves."<sup>8</sup> Infinite play inserts itself into childrens' lives when they gain exposure to nature and natural processes at a young age.

Froebel developed his teaching methods during the late nineteenth century, a time where environmental consciousness dwindled with the advancing machine age. The focal shift from religion to nature gave the students a heightened awareness of themselves, along with the spaces inside and outside of the classroom. Froebel's occupations, natural elements presented as educational tools, allowed his students to understand the geometric elements and natural processes found in nature.<sup>9</sup>

Froebel's students carry with them the lessons handed down with each gift and occupation. However, upon entering adulthood, most package this knowledge and store it in the further reaches of memory. They reside there as memory triggers and horizontal boundaries, but often remain largely repressed by the adult. Adults carry with them the memories of play - all of the fun, joy, terror, and excitement that they experienced as children projected against the constructed backdrop of the spaces they occurred within.

The generic nature of typical, North American play-spaces allows memories of play to be evoked merely through generic form, rather than specific location. A play structure holds with it the memory of a single moment, but also compounds all incidences the player engaged with similar apparatus and play-objects during his lifetime. One does not need to see the specific park or playground of his childhood for a play structure to resonate in one's memory. Similarly, organized play asserts reminders of itself, for example, through typical sports arenas. Any hockey rink or baseball diamond bring with it memories of victories, losses, teams and teammates. The exact arena played at in childhood surely brings with it heightened memories, though the universal form of these sports arenas permits memories to be evoked through similar structures and locations.

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**N e t w o r k o f P l a y**  
*The Child, the City and Aldo van Eyck*

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I have played. I have explored new environments. I have explored familiar environments as if for the first time. I have explored freely.

Co-operative education sends the students into the work force, to put on the veil of architect while still wearing the mask of a student. The student engages in professional behaviour, owning the role in order to succeed in the position. A co-op position brings with it a playful lifestyle away from the University setting. With positions in Vancouver, New York and Toronto, I have explored all of the nooks and crannies of those new cities and played in new environments.

Through this unfolding, each new city became an urban playground, open to challenge, engage and surprise me. Co-op, along with a semester studying in Rome, Italy, provided many opportunities for play and exploration. I entered into each city in a state of play, lightheartedness and joviality. I unpacked each place the way a child might a new toy. Satisfaction through play often holds a reciprocal value to the effort put into it. The level of disbelief suspended, the energy expended in exploration. In

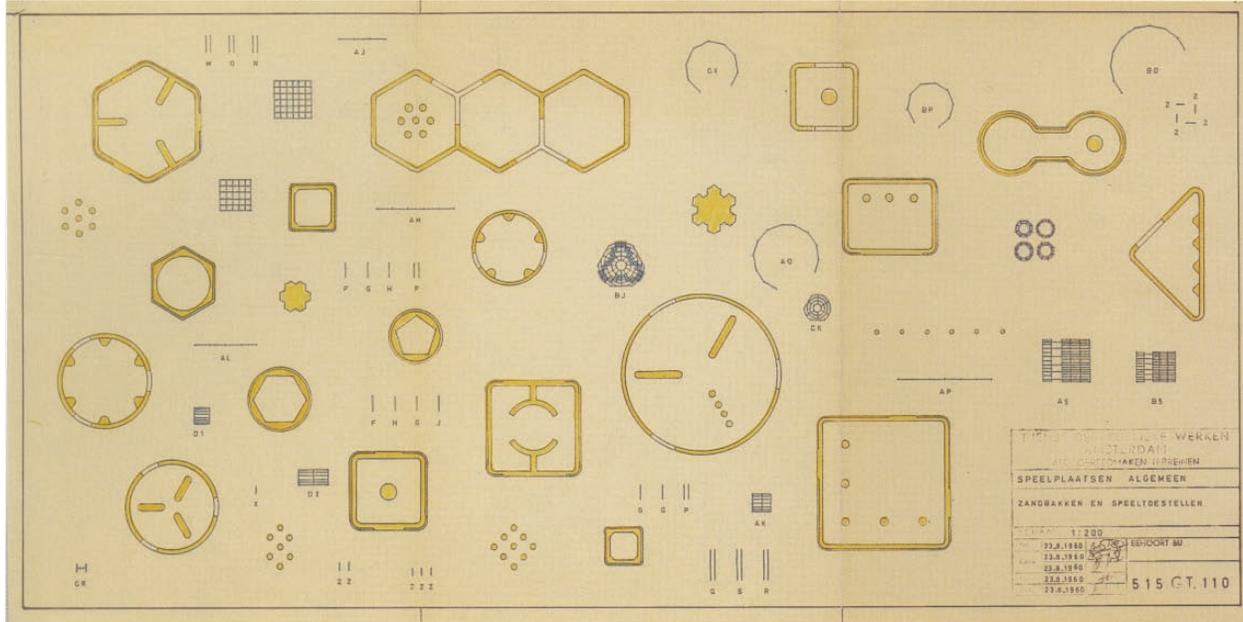


fig. 17. Drawing of play apparatus typically found in van Eyck's playgrounds: hanging bars, stepping stones and sand pits.

school, as well as co-op placements, I have made great efforts to explore and play to the best of my abilities.

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During his time working in the Office of Public Works between 1947 - 1977, Dutch architect and theorist Aldo van Eyck designed over 700 playgrounds throughout downtown and suburban Amsterdam.<sup>1</sup> Over this time, play became an organizing and revitalizing function of Amsterdam. Van Eyck infused the city with play. He started in the war-ravaged downtown core and worked his way through the newly developed suburbs. For van Eyck, play offered an opportunity to explore human actions. He created a spatial organization and series of objects to support them. The simple, refined playgrounds that van Eyck designed offered players the opportunity to create their own infinite games that remained within the boundaries of a defined play-space.

Van Eyck became a play-mate of mine long before Huizinga and Carse. His designs appear as physical manifestations of his, Carse's and Huizinga's theories. Van Eyck provided defined boundaries, but created opportunity for exploration within them.

Van Eyck designed objects within the playgrounds that fostered active and creative play. He created a series of basic forms out of steel tubing or poured concrete (with wooden

1954



*fig. 18.* Location and density of van Eyck-designed playgrounds throughout Amsterdam, 1954.



*fig. 19.* Location and density of van Eyck-designed playgrounds throughout Amsterdam, 1961.

objects added later on) that took on myriad functions based on the creativity and impulse of the user. Van Eyck used concrete to create a series of small pads that he scattered in seemingly random patterns, and concrete-edged, large, space-defining sand-pits often contained concrete discs within them. Van Eyck used industrial metal tubing for climbing domes and hanging bars in various shapes and configurations.<sup>2</sup> The basic forms of these objects provided an infinite number of uses. With these objects, van Eyck provided opportunities rather than rules to be followed.

The downtown playgrounds quickly evolved into a dense network of playgrounds throughout Amsterdam. Aldo van Eyck lived outside of the Netherlands during the war, but still strongly felt its repercussions. Van Eyck returned to Amsterdam at the end of 1945 to find a city devastated by war. The Office of Public Works commissioned van Eyck to fill in the ‘gaps’ left in the city after the war. These gaps had been created as the result of the tearing down of houses in which Jews had lived until 1942. Van Eyck chose to rehabilitate the shattered city quickly and inexpensively with the insertion of play.<sup>3</sup>

What had begun as an ad-hoc response of a young architect to a perceived need on the part of a war-torn city for playgrounds in 1947 became, by the time the new neighbourhoods went up, official policy. Every block that wanted one was equipped with a playground.

Liane Lefavre

*Aldo van Eyck: the Playgrounds and the City*

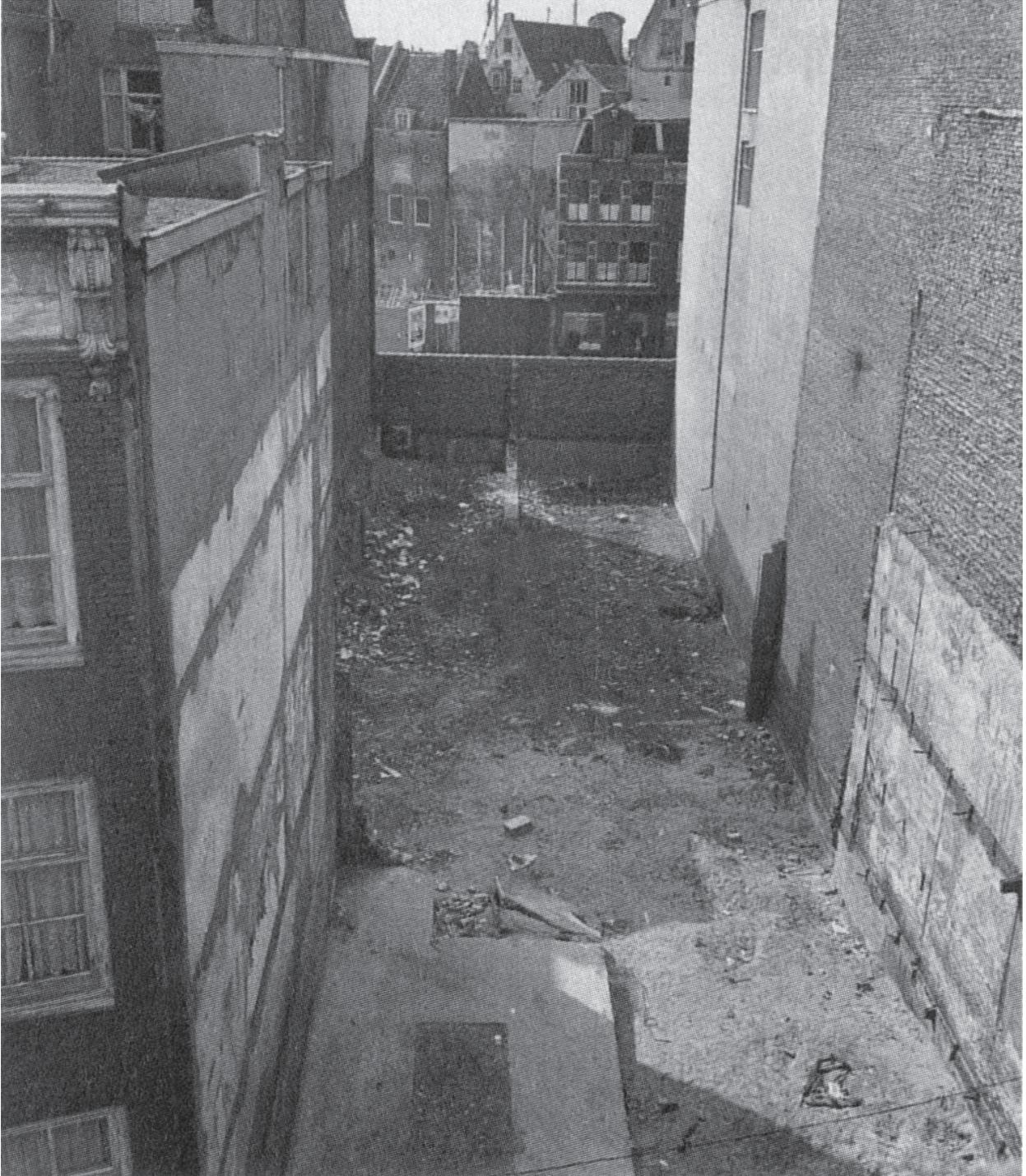
Van Eyck’s earliest playgrounds sat in lots devastated by the atrocities of the Second World War. During German raids on

the city of Amsterdam, Nazi soldiers sealed off and proclaimed a portion of Amsterdam's downtown as a Jewish Ghetto.<sup>4</sup> During the war, the Nazis systematically deported the Jewish residents to concentration camps, largely Auschwitz and Sobibor, many via the Westerbork transit camp.<sup>5</sup> This devastated the city and its residents, many of whom began an ill-fated uprising against the German occupiers two days after they ghettoized the city.

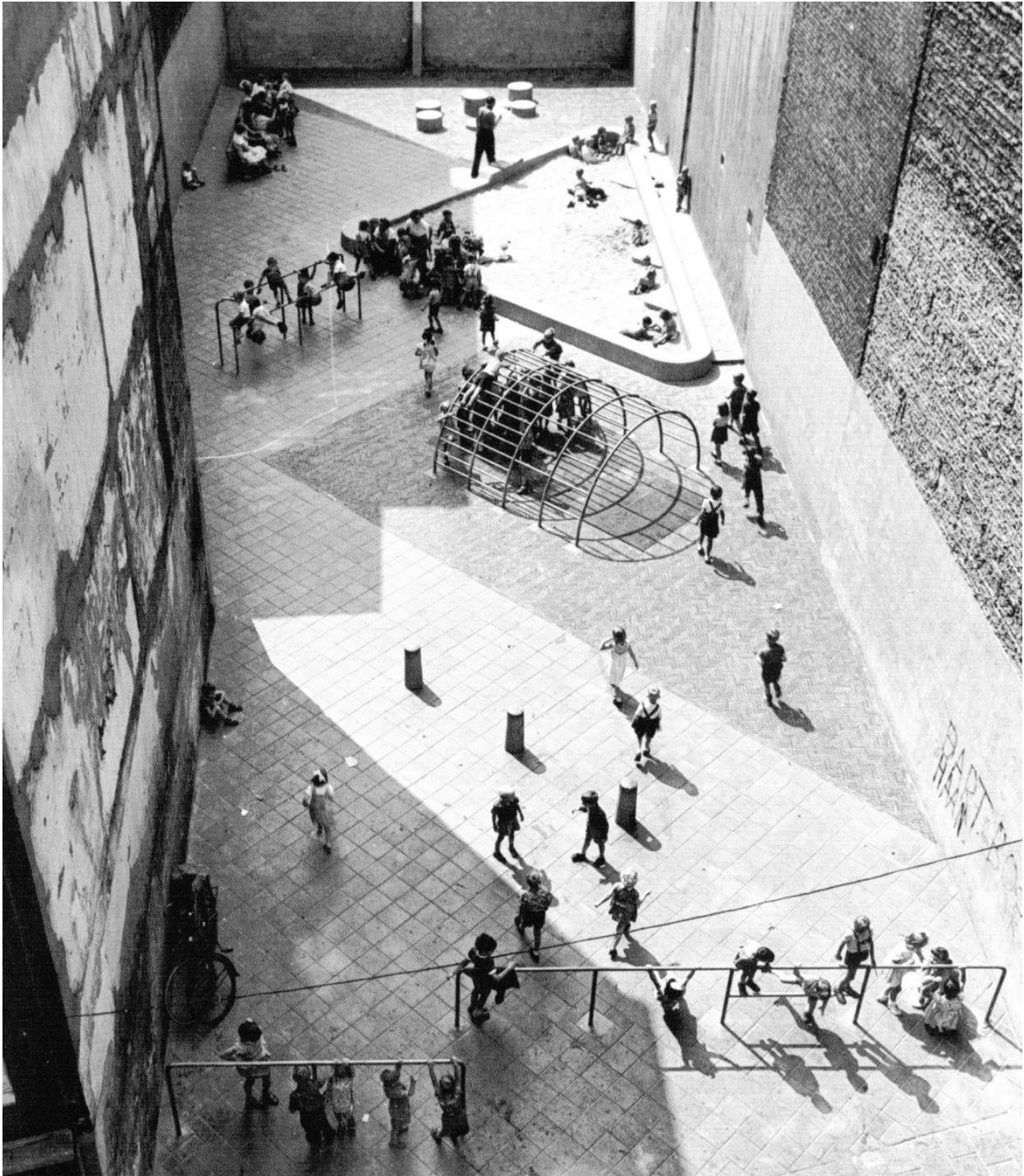
With so many of Amsterdam's Jews already deported to their deaths, their abandoned homes fell under disrepair. In the winter of 1944, "with little fuel available [...] heating became a luxury."<sup>6</sup> The gentiles in neighbouring homes ravaged and dismantled the Jewish homes, using structural elements, and anything that had not been previously seized by the Nazis, for fuel. After the war, the vacant lots sat as mnemonic devices of the atrocities that took place in Amsterdam's core. These visual cues offered the citizens constant reminders of colleagues, neighbours and friends that had perished in the war.

Aldo van Eyck, upon his return to Amsterdam in late 1945, took up a position with the city's Parks Department. Upon arrival, his first task focussed on the rehabilitation of the city through these desolate holes in the city's urban fabric. In her text on van Eyck's playgrounds, *The Playgrounds and the City*, Liane Lefevre writes that:<sup>7</sup>

The very first playgrounds were embedded very often in the voids of Amsterdam where the houses of deported Jews had stood. Filling them with life, in the face of these facts, was a redeeming, therapeutic act, a way of weaving together once again the fabric of a devastated city. The intention was to thwart what Huizinga



*fig. 20.* War-ravaged lot amidst Amsterdam's urban blocks, prior to van Eyck's intervention, 1954.



*fig. 21.* Dijkstraat, Amsterdam, after van Eyck inserted play to breathe new life into the city's downtown core, 1954.



*fig. 22.* War-ravaged lot amidst Amsterdam's urban blocks, prior to van Eyck's intervention, 1955.



*fig. 23.* Zeedijk, Amsterdam, after van Eyck inserted play to breathe new life into the downtown core, 1956.



*fig. 24, 25.* Rubble 'play-spaces'; children using wreckage and debris from bombings as urban play-spaces in London, England after World War II. Children played despite the devastation that demolished their neighbourhood.

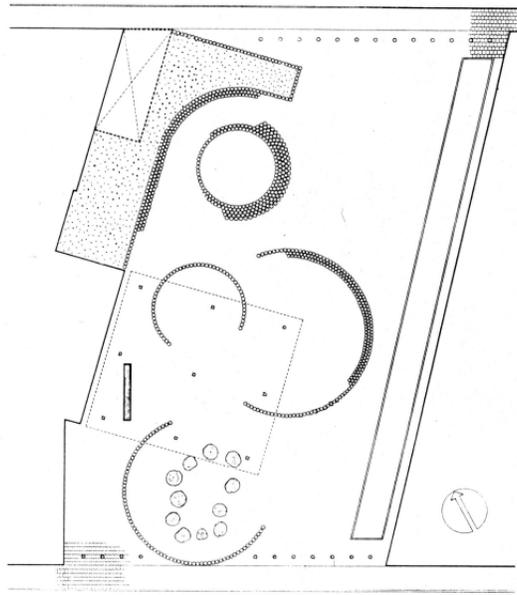
in his chapter entitled 'Play and War' had called the agonal by overcoming it through play.

Liane Lefavre

*Aldo van Eyck: The Playgrounds and the City*

Van Eyck expanded on the concept that Huizinga had begun exploring; the insertion of lightness into a darkened place. Immediately after the war, the citizens of Amsterdam had not yet recovered emotionally or physically from the devastation they had witnessed. The mood throughout Europe was dark and Amsterdam was no exception. Van Eyck understood the gravity and importance of rehabilitating a city still clinging to the guilt and grief of the war. These initial playgrounds became a glimmer of hope and light in a dark, devastated city. Van Eyck inserted murals and playgrounds to bring a renewed energy and optimism to the city, and hoped the attitude would transfer to the citizens through their encounters with these spaces. That a network of play developed confirmed what Huizinga and van Eyck suspected. Play *is* a civilizing element of culture. With the introduction of play came the reintroduction of culture into a city that temporarily lost it. The regeneration of the city occurred in tandem with the network of play taking hold of it.

Van Eyck made use of Huizinga's principles of play through his own designs. As his playgrounds came into being only a decade later than Huizinga's *Homo Ludens* went into publication, Liane Lefavre acknowledged the connection between the two theorists. "[Van] Eyck's playgrounds shared with Johan Huizinga's *Homo Ludens* the profound belief in the civilizing function of play."<sup>8</sup> The idea of boundary - of time and space



*fig. 26.* Plan and photograph of Nieuwmarkt playground by Aldo van Eyck, 1968.

binding play and separating it from 'life' - recurs in the planning of van Eyck's playgrounds and architectural works.

The architecture of van Eyck's playgrounds become infinite play-space. The abstract nature of these spaces promotes continual exploration by the players who push the limits of their own creativity. In van Eyck's designs, the players' viewpoints shift to reveal different elements of themselves as they move through the space(s). The players explore the space using their own direction and instincts, rather than being led through a series of hierarchical spaces. Van Eyck uses horizontal boundaries, rather than finite boundaries, and allows space to unfold before the player.<sup>9</sup>

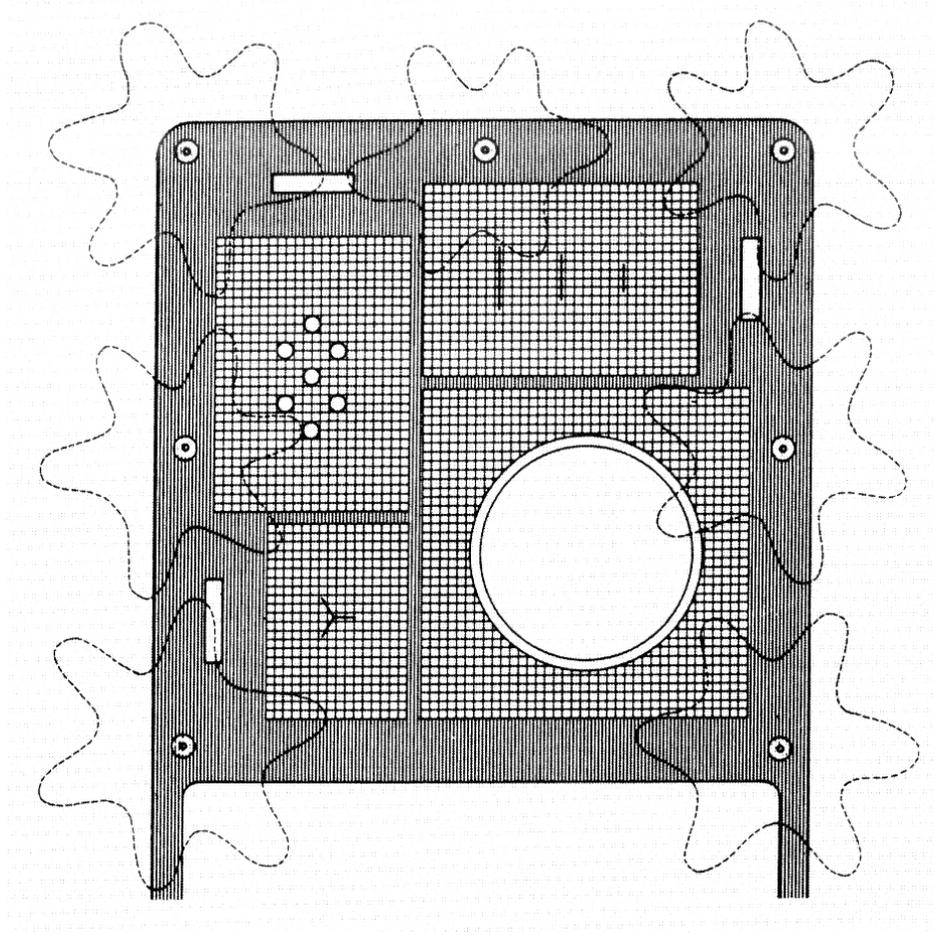
A first step in the artistic domain consists of deviation from the normal representation by projection - i.e. a projection where the viewpoint does not match the laws of perspective, where the viewpoint shifts and the object moves along with it. One can also select the viewpoint and allow the object to shift.

Francis Strauven

*Aldo van Eyck: The Shape of Relativity*

Van Eyck created a landscape of play over the duration of his career, both in writing, research and construction. His theories on "twin phenomena" and "labyrinthian clarity" contain elements of irony, humour and sarcasm. Though serious in intent, van Eyck's theories play on the reconciliation of opposites: darkness and light, seriousness and play, many and few, labyrinthian and clear.<sup>10</sup>

It is up to architecture to provide a built framework - to set the stage as it were - for the twin phenomenon of the individual and



*fig. 27.* Van Eyck's plan for Zaanhof, Spaarndammerbuurt playground in Amsterdam, 1948. The plan indicates balanced, non-hierarchical spatial divisions with evenly distributed apparatus that activate the entire site and create an inward-looking space.

the collective without resorting to arbitrary accentuation of either one at the expense of the other, i.e. without warping the meaning of either, since no basic twin phenomenon can be split into incompatible polarities without the halves forfeiting whatever they stand for. This points toward the necessity of reconciling the idea of unity with the idea of diversity in architectural terms or, more precisely, to achieve the one by means of the other. It's an old forgotten truth: that diversity is only attainable through unity, unity only attainable through diversity.

Aldo van Eyck

*The Child, the City and the Artist*

A student of Huizinga, and a precursor to Carse, van Eyck acts as a bridge between the two theorists. Van Eyck and Huizinga came from the same culture, consequently, van Eyck understood and identified with the context of Huizinga's writing. Van Eyck created built forms that embodied Huizinga's ideals. Van Eyck separated the space of play in the city by simply changing the paving material. This subtle - yet elegant - change created a boundary between the sacred space of play and the serious world outside; van Eyck created a spatial boundary for play within the city, which fulfilled one of Huizinga's most critical rules of play.

Van Eyck's playground designs provide opportunities for active and infinite play from the design and formal planning of the site to the elementary forms of the objects within the space. Aldo van Eyck used simple forms and materials to garner a wide variety of actions from players using the same object.<sup>11</sup>



*fig. 28.* Zaanhof, Spaarndammerbuurt playground by Aldo van Eyck, 1948.





*fig. 29.* The simple, concrete stepping stones assist in childrens' play.

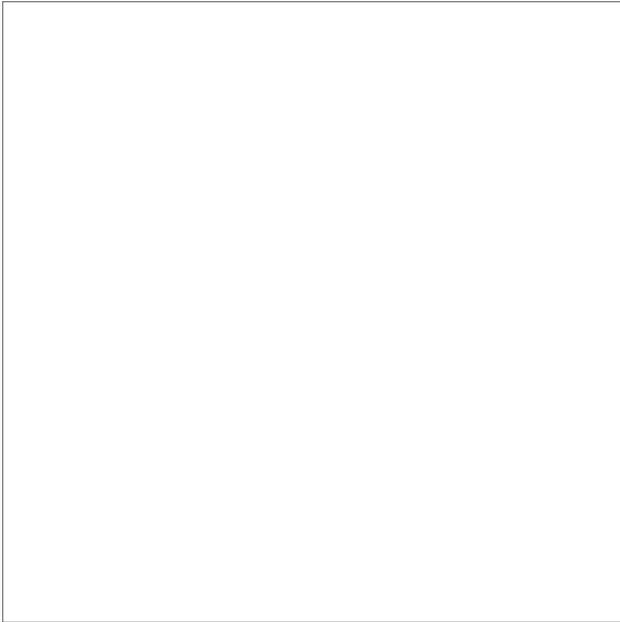
These solid concrete elements are contrasted with slender constructions in metal tubing: the small, utterly simple somersault and climbing frames, placed in a group of three or more that marks a place, or in a row that delimits places, and the large arch. The arch, made up of three or more spoked segments, has a primary architectonic form whose convex and concave faces both lend themselves to a variety of uses. It is both a tunnel and a bridge, both a venue and a gymnastic apparatus. The children can climb over it, hang from it or nestle in it. It can be a hill on which to sit on the lookout, a place to confer or, with a tarpaulin stretched over it, a house.

Francis Strauven

*Aldo van Eyck: The Shape of Relativity*

The range of activities the objects support reflect the beauty of the objects' simplicity. The more complex an object becomes, the more difficult it becomes to interact with it creatively. The banal nature of van Eyck's creations allows the user to dictate use, rather than the object. The objects support active, creative, infinite play.

The possibilities for imaginary play increase dramatically when the architecture allows for possibility. One staple of van Eyck's playgrounds, the simple, circular, concrete pads act as stovetops to cook mud-pies crafted from the nearby sandpit; stepping stones for young boys to test their jumping abilities; or informal seating for a group of adults enjoying their lunch. The openness comes from the objects' formal simplicity. Van Eyck creates basic, elementary forms that allow for interpretation, and arranges them in formations that allows for the white space between them to sing. "Van Eyck designed 'tools for the imagination'."<sup>12</sup>



Space



Action

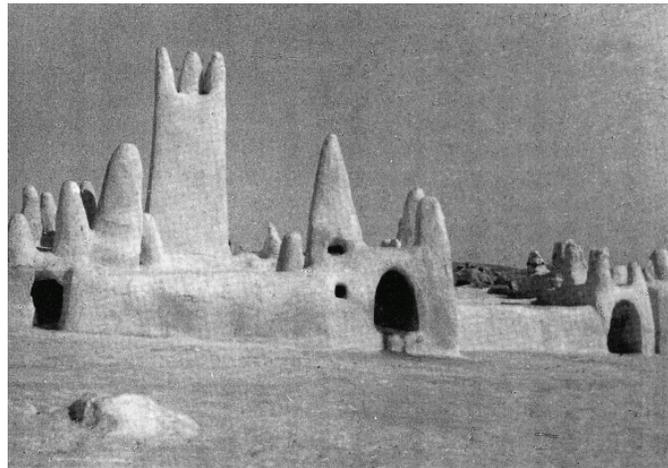
*fig. 30.*



Object



Context



*fig. 31, 32.* Photographs of African villages, taken by Aldo van Eyck on his travels through Africa.

Aldo van Eyck and his wife Hannie traveled through many North African countries to study and observe their vernacular architecture and design. From these visits, van Eyck gleaned the importance of primary forms, and the power of simplicity.<sup>13</sup>

The travels that Aldo went on [...] shared a constant theme, that of the ‘elementary’. Their aim was, at least in the first instance, not to become acquainted with modern or classic art and architecture, but to make direct contact with the primary forms of visual language.

Francis Strauven

*Aldo van Eyck: The Shape of Relativity*

The Dogon culture utilized seemingly simple planning and construction principles that fascinated the Aldo and Hannie van Eyck. The use of adobe mud-brick renders the form and individual components of Dogon architecture basic, which van Eyck referred to as “elementary”. Van Eyck took inspiration from these forms, but also the minimal material palette that produced them.<sup>14</sup>

The uncomplicated, elementary stone and mud-brick forms inspired van Eyck’s own sense of space and material choices. The position of elements and the power of their location stood out in his mind. He translated this into his own designs. The stripped-down pavilion, with its concrete-block walls and translucent roof, and playgrounds consisting of concrete, pavers and metal tubes, parlay the impact these visits had in his designs.<sup>15</sup>



*fig. 33, 34.* Zeedijk playground, 1955-6 with mural by Joost van Roojen, 1958.

Elementary forms are forms that are simultaneously both simple and complex, just like the essential that they express. The simplicity of the elementary is not a goal in its own right, but something one reaches.

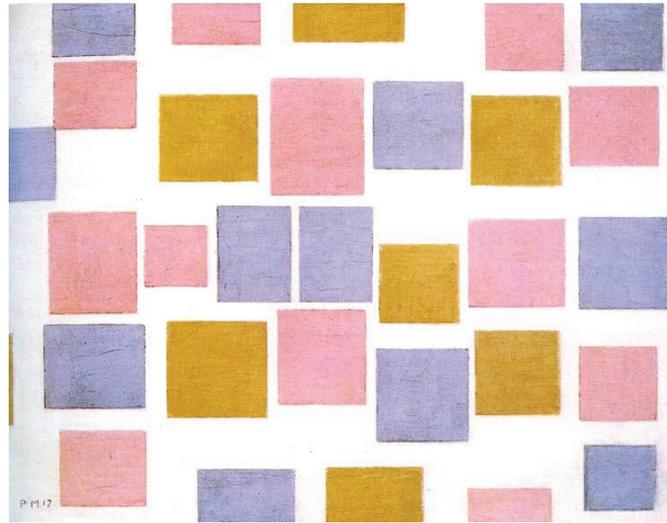
Francis Strauven

*Aldo van Eyck: The Shape of Relativity*

Van Eyck collaborated, both intellectually and professionally, with a group of contemporary artists in Copenhagen, Brussels and Amsterdam known as CoBrA, as well as an international constituency of architects called the Congrès International d'Architecture Moderne (CIAM). Through these organizations, painters Piet Mondrian, Karl Appel, Constant, Paul Klee, Joan Miro and Joost van Roojen heavily influenced van Eyck's work and architectural approach.<sup>16</sup> These abstract painters treated the canvas like a field; they decentralized their paintings from the hierarchical organization of classical paintings.

In 1949, Karel Appel produced a mural for the cafeteria of Amsterdam's City Hall, which the city council vehemently disapproved of.<sup>17</sup> Aldo van Eyck, Appel's friend and supporter, requested the artist collaborate in painting murals along building walls adjacent to newly-constructed playgrounds. The murals added light and life to the playgrounds surrounded by bleak, blank neighbours. The abstraction and lack of focal point in Appel's murals created an synergy between van Eyck's simple playground forms and the highly energetic movements produced by the visitors.

These abstract paintings that van Eyck drew inspiration from contained an unprecedented freedom of form and composition, one that stuck with van Eyck as he designed playgrounds and subsequent architectural works. The non-



**fig. 35.** *Composition no. 3 with Colour Planes* by Piet Mondrian, 1917. The de-centralized canvas with object strews around served as inspiration for the spatial planning of van Eyck's playground designs.

linear, non-hierarchical abstract planning of his playgrounds treated the site in the same way Mondrian treated the canvas of his *Composition with Planes of Colour* in 1917.<sup>18</sup>

Aldo van Eyck's compositions entail a fundamental spatial transposition of this principle. He reconsidered it from the viewpoint of an observer moving through space and implemented it with the spatial means specific to architecture. Although Mondrian offered a clear syntactic insight into the structure of the new reality, the most frequently occurring syntactic binding agent in the playground designs, the principle of axial relation, does not stem from Neo-plasticism but from architectonic tradition.

Frances Strauven

*Aldo van Eyck: The Shape of Relativity*

The field served as a site for the objects scattered throughout. The space around the object, the white space of the canvas or the concrete paving of the site becomes equally as important as the objects themselves.

Through careful, strategic planning, van Eyck balanced each object (or group of objects) within the playground equally. It did not favour one piece of equipment over another. The space around each object offset the other elements in the space. Van Eyck created radial, centrifugal forces within the spaces of play to shift the player's view as he moved through them. The chaperone's focus as well as the players' focus was directed towards the play occurring in the centre of the space, rather than the outlying activity of the city.<sup>19</sup>

Van Eyck used each site's existing geometries to inform the planning of each playground. The abstract planning of the site



*fig. 36.* Sumatraplastsoen, Indische Buurt, playground by Aldo van Eyck, 1965-1967.

did not dictate a pattern or order of exploration, which allowed each player to use and investigate the space in his own way.

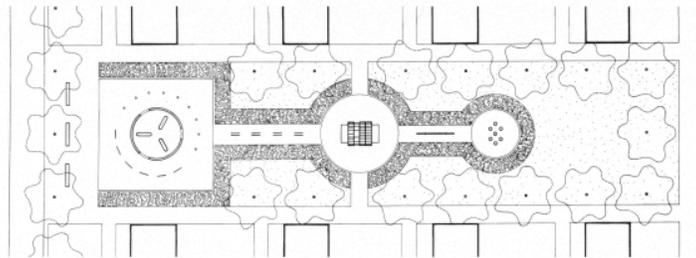
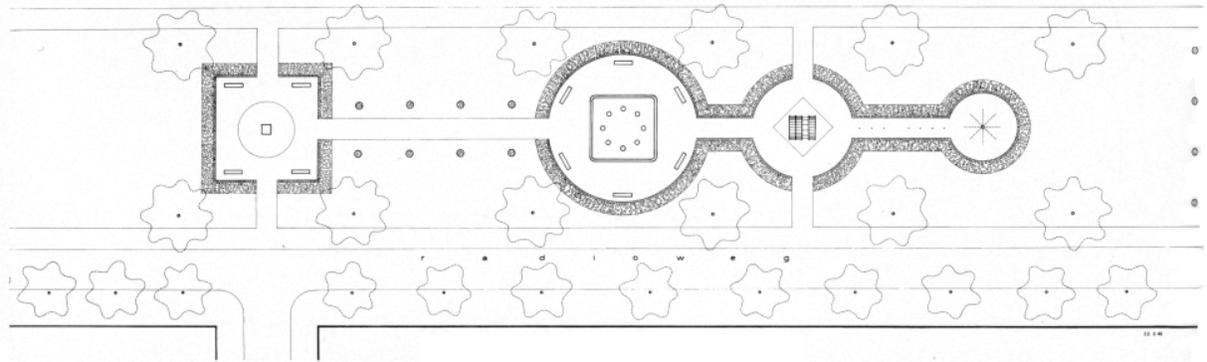
Van Eyck distinguished groupings of apparatus - stepping stones separated from the hanging bars or climbing dome - to distribute objects and people throughout the site. Typical play structures amalgamate all activities into one large superstructure, usually located in the centre of the space. This draws all of the site's activity to the same spot, and minimizes any activity on the other areas of the site. By separating and evenly distributing activities throughout the space, Van Eyck democratized the site for both people and objects. Each area of each site took on an equal importance and balanced weight, and could support many people and activities.<sup>20</sup>

[Van Eyck] introduced a focal point to create a 'somewhere' and to connect the [elements] with one another. The focal point, usually marked by the sandpit, did not usually coincide with the geometric centre of the site. It was always out of alignment with that centre, though never to such an extent that attention was led beyond the site. The result was an asymmetrical situation that was then brought into a dynamic equilibrium by the placing of the other elements.

Francis Strauven

*Aldo van Eyck: The Playgrounds and the City*

On long, linear sites, van Eyck utilized one of two spatial devices. Van Eyck's first approach arranged objects on diagonals, which forced visitors to weave around the objects. This also skewed the visitor's frame of reference from the site's natural geometries. The second method created frames, often of shrubbery, around several objects connected linearly via



*fig. 37, 38, 39.* Van Eyck's plans and photograph of linear playgrounds, showing boundaries for each object within the space.

pathways. Van Eyck placed the play apparatus in the centre of each opening, and relocated the visitors' circulation around the objects.<sup>21</sup>

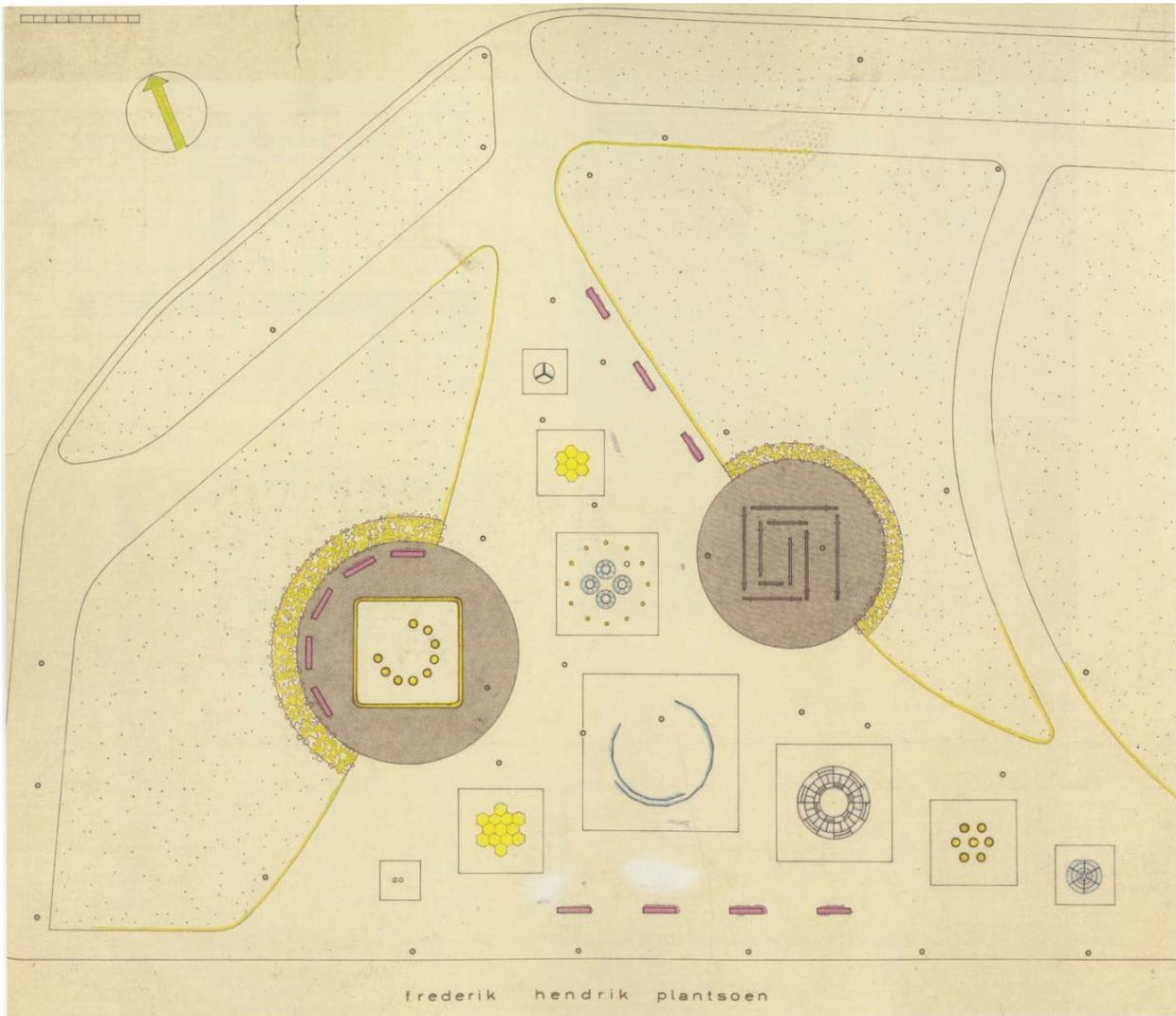
As in the grounds of Versailles, a person walking the length of the main axis is obliged to deviate from it by the centrally placed objects. And as at the Place de la Carriere in Nancy, the whole ensemble has the outward appearance of a massive green structure which, on closer examination, turns out to contain an open interior.

Francis Strauven

*Aldo van Eyck: The Shape of Relativity*

Van Eyck treated the linear playground sites with the same respect he had for the grand axis at Versailles. The hedges planted around the site, coupled with the constant shifting of view provided the players with a constantly changing experience, view and environment. The players' view changed as he circulated around the site, whether he looked down the long axis, or turned ninety degrees to face the apparatus in the central zone. The linear sites changed van Eyck's abstract planning approach that he championed on rectangular sites, but maintained his need for shifting views and non-hierarchical spaces.

Site-lines for chaperones of playing children determine the placement of many elements throughout the playgrounds. Van Eyck carefully considered the safety of children in his playgrounds. He relegated benches to the site's perimeters to maximize play space within the center. This allowed seated adults clear views of their frolicking children at all times.



*fig. 40.* Plan of Frederik Hendrik Plantsoen playground, 1949, indicating location of apparatus and change of paving between objects.

Focal points, then, did not focus on a single, central locus, but rather “with one or more focal points that are located outside the geometric centre.”<sup>22</sup> This decentralization of space and openness of plan created an openness in the player, as play may occur in all areas of the site.

The space between the objects created a foil to the objects themselves. The tension between space, object and boundary charged the playgrounds with an undeniable energy. This energy reflected in the playful actions of the users. Van Eyck’s priority lied in the comforts and needs of each unique user within each unique site. Huizinga noted the importance of boundaries to distinguish play from reality. “Play is distinct from ‘ordinary’ life both as to locality and duration.”<sup>23</sup> Van Eyck changed the playgrounds’ paving to differentiate play from the rest of the city. Within the playgrounds, he changed the paving around each grouping of objects to differentiate one space from another.

Children confronted the objects in the order they deemed appropriate to their style of play, rather than encountering each object in a specific and organized manner. The components of the playground imbued Amsterdam’s vacant lots with character and meaning. They turned space into place within the city. These abstract planning principles lied outside of the child’s typical association with space, which transformed it instantly into an ‘other’, a space where “other” actions, such as play, were not only permitted, but encouraged.

Van Eyck favoured form; the spatial complexity and the openness for engagement that results from meticulously organized plans to optimize the conditions of each site.<sup>24</sup>

small - large  
few - many  
part - whole  
unity - diversity  
closed - open  
constancy - change  
rest - motion  
order - chaos  
individual - collective  
unity - diversity  
singularity - plurality  
simplicity - diversity  
mass - space  
interior - exterior  
**Labyrinthian - Clarity**

*fig. 41.*

All [the] elements are immobile. They are all simple, stable, archetypal forms that do not impose a fixed function but suggest many different uses. They offer the children a stimulus to discover an opportunity to develop the movements to which they are spontaneously inclined: jumping, climbing and somersaulting.

Francis Strauven

*Aldo van Eyck: The Shape of Relativity*

Huizinga imparted the importance of boundaries, the adherence to rules and the freedom required to truly become immersed in the game. Each playground of van Eyck's oeuvre with Amsterdam's Office of Public Works firmly held onto their own boundary. Each playground's plan contained separate elements suspended in space, a decentralized plan to encourage movement from one apparatus to the next, rather than a linear progression and hierarchy.

The playgrounds dissolved at the boundaries in order to give the players free reign over the space while still maintaining an acute awareness of the edge that separated the play-space from the reality. The white space became the space of exploration, the boundary that shifted with each player, each movement. Paving around each set of objects provided further subsets of boundaries, with each section of the playground as a microcosm of its entirety. The change in paving created a separation without a physical boundary; a separation without blocking one space from the next. In this, van Eyck referenced his theory of "Twin Phenomena".

A twin phenomenon satisfies two irreconcilable circumstances: Few / Many; Rest / Motion; Order / Chaos; Individual / Collective.<sup>25</sup> Van Eyck states that both of these qualities

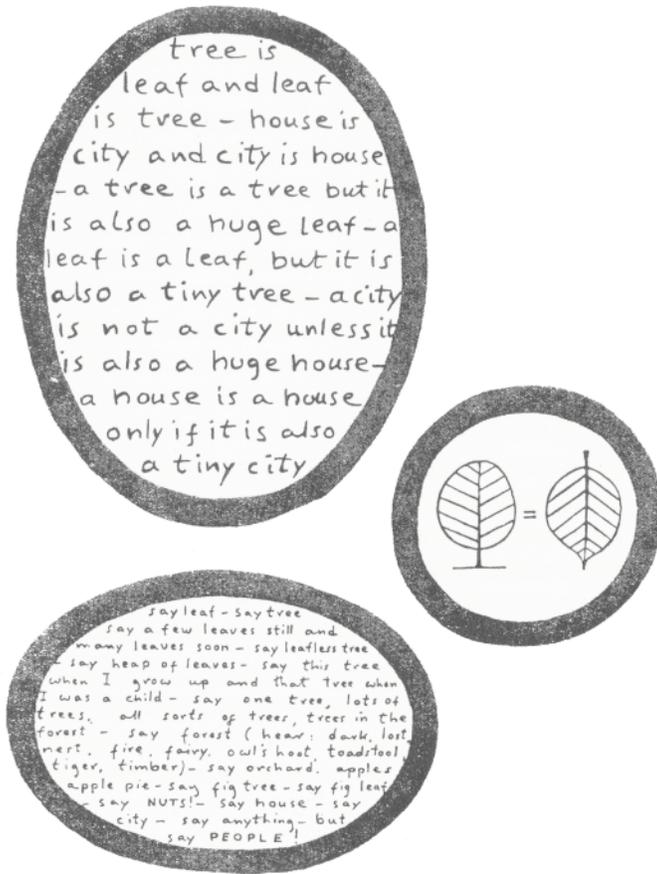


fig. 42. Diagram of Twin Phenomena by Aldo van Eyck.

must be satisfied in order to create a stimulating, charged environment. Spaces that reconcile twin phenomena challenge the visitor. The spaces do not allow for complacent visitors as the spaces stimulate and engage him throughout his experience in the space. Aiming to achieve a balance between the two poles does not produce such a space; instead, it disappoints both sides. Balance leaves each quality unfulfilled, leading to a hollow space. Instead, each quality must be fully developed. The space must allow for both rest *and* motion, order *and* chaos, the individual *and* the collective.

Van Eyck's built works actualize his theories of 'twin phenomena'. They allow for both finite and infinite play to occur. The tension between opposing qualities creates a tension and charge within the space. A tension between interior and exterior, individual and collective. Huizinga states that play exists in a realm outside of the ordinary, between dreams and reality.<sup>26</sup> Van Eyck's reconciliation of twin phenomena creates a charged environment that allows for players to immerse themselves in their environment, immerse themselves in play.

Van Eyck's has developed a particular twin phenomenon that he used to describe much of his built work: "the house is like a small city if it's to be a real house - a city a large house if it's to be a real city."<sup>27</sup> Often, this manifests itself through scale; the scale of objects, corridors and rooms, but also the space between these elements. Space acts as a defining feature of van Eyck's work, with ample or limited breathing room becoming spaces for varying activities. Often the spaces and proportions that work at a small scale also work at a large scale.

Amsterdam's Office of Public Works used the child in the city as a catalyst for their urban regeneration strategies

after the Second World War. Because of the city's growing demographics, the department continued on the path of a city-wide network of play as a tool to rehabilitate the city immediately after the war. As a Dutch theorist designing just after Huizinga's death, Van Eyck's knowledge of Huizinga's theories of play and culture certainly influenced his decision to utilize play as the formalizing element in the rehabilitating city. As Liane Lefevre noted in *Aldo van Eyck: The Playgrounds and the City*, "for van Eyck, childhood was equated with the 'ludic'. As with the other ideas [...] the idea of the 'ludic' city projected by van Eyck in the playgrounds was part of the debate of the time."<sup>28</sup>

In addition to filling the voids of death and tragedy that littered Amsterdam's downtown core, play filled vacant spaces in the newly-created suburbs of the city. The city grew past its wartime limits with the post-war "baby boom". The abundance of children in the city confirmed play as the appropriate solution to rehabilitate the city as well as add culture and interest to the suburban neighbourhoods. Throughout this urban network, the city of Amsterdam became a space of play and exploration, for adults and children alike.

Van Eyck's playgrounds, at the most intimate level, provided opportunities for adults and children to play. The spaces between objects allowed for movement, gathering and observing, while the objects themselves allowed for myriad activities bound only by the player's imagination and creativity. This could be seen in each individual playground scattered throughout the city over the thirty year span. The playgrounds formed a true network within Amsterdam's city fabric over that time.<sup>29</sup>

As the number of playgrounds increased, they gradually formed a continuous network of places spread through the urban fabric. Furnished as they were with recurrent type-forms, the child could recognize them instantly as his own territory: places that the child could identify from neighbourhood to neighbourhood as giving due recognition to his existence as a city dweller. Nonetheless as places they are not the exclusive property of children. They do not, once the children have gone home, give the appearance of deserted amusement parks. Relieved of their childish commotion, their elementary tectonic forms establish public places with a distinct urban character, places that also make sense to the adult, as a respite when traveling through the city or as a rendezvous.

Francis Strauven

*Aldo van Eyck: The Shape of Relativity*

The objects within the playgrounds acted as a microcosm for the playgrounds in the city; the change in paving as the city limits, the stepping stones as a playground within a neighbourhood. The city as a large playground, the playground as a large city. The playgrounds had the ability to change the attitude of the players, but also of the neighbourhoods surrounding them, from seriousness to play.

The network created a universal experience by weaving many particulars into an experience that unified the entire city. The citizens became trained to expect play within the city, but the manifestation of each playground still served to surprise the players. Van Eyck used the same repertoire of elementary forms throughout all of his playgrounds to imbue the playground with instant visual recognition, and visual coherence to the city. The visual recognition allowed the players a sense of ownership and familiarity when they encountered a playground, even if it was

one they had never been to before, which allows the user to reappropriate ownership of the space and define his own actions within it.

Van Eyck's work - the playgrounds and the Sonsbeek Pavilion - illustrated his theory that architecture does not exist until activated by people. The space between objects gave the objects a relative value to each other. Their spatial relationship created the tension, but the players completed it.

The space between the objects allowed for exploration and allowed for play. The empty spaces, rather than the concrete objects, created the spaces of interest and interpretation. In the Sonsbeek Pavilion, the spaces between the walls, tall and severe, and the paved circle it sat within created a dynamic relationship, optimal for exploration due to its irregularity. James Carse notes the shifting boundary of nature, and the spaces it creates. "Just as nature has no outside, it has no inside. It is not divided within itself and cannot therefore be used for or against itself."<sup>30</sup>

Van Eyck states that one must "take pleasure in the space between elements."<sup>31</sup> The space between elements becomes the space of Carse's infinite play. The objects within the spaces provide finite boundaries. However, without the spaces between them, spaces to run wild, the players cannot gain a sense of perspective or freedom from the finite objects.

Only images remain of van Eyck's playground network, and, until 2006, his Sonsbeek pavilion. However, the images of van Eyck's work do not do justice to the spaces he created. Images of the empty playgrounds present the viewer images of empty, almost uninhabitable spaces. Photographs of the playgrounds

include children at play to emphasize the use and activity the objects and spaces support. The playground itself requires play in order to convey any sense of aesthetic appeal. It is the players in the photographs convey the energy and spirit of the place. Van Eyck's work reflects the use and users of the space, rather than its aesthetics. Modest materials give way to rich activities. Unfortunately, modest materials, like the concrete block of the Sonsbeek Pavilion, create lacklustre imagery.

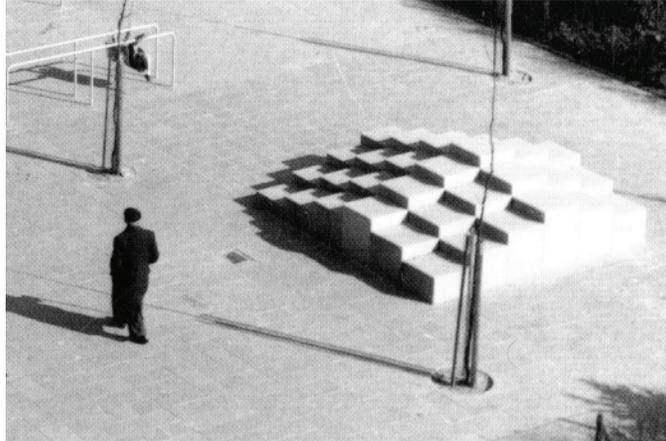
The shift to architectural photography changed the landscape of architecture dramatically. Architectural focus shifted to imagery rather than the creation of stimulating spaces as photographic journalism and the proliferation of images reflects the new commodification of architecture. Van Eyck chose to satisfy the users of the space, rather than the viewers of the images.<sup>31</sup>

[The playgrounds] were not the exclusive prerogative of children. If there were no children there, they did not look like deserted amusement parks. Stripped of children rushing around, their elementary constructions continued to form locations with an urban character, locations that were also meaningful for adults as places to rest or meet as they moved through the city.

Ingborg de Roode

*Aldo van Eyck: The Playgrounds and the City*

Similar to van Eyck's playgrounds, the Sonsbeek pavilion looks quite austere in photographs, but the image belies its compelling environment. Van Eyck designed for the user rather than the viewer. An image of a vacant playground showed an incomplete space that required players to complete. The children at play carried life through the network of playgrounds in the city. The



*fig. 43.* Oetewalerpad playground, 1956, void of energy and players.  
*fig. 44.* Transvaalplein playground, 1950 activated by players using simple logs as balance beams.

Sonsbeek pavilion inserted the possibility of excitement and joy into the dark days of the Cold War.<sup>32</sup>

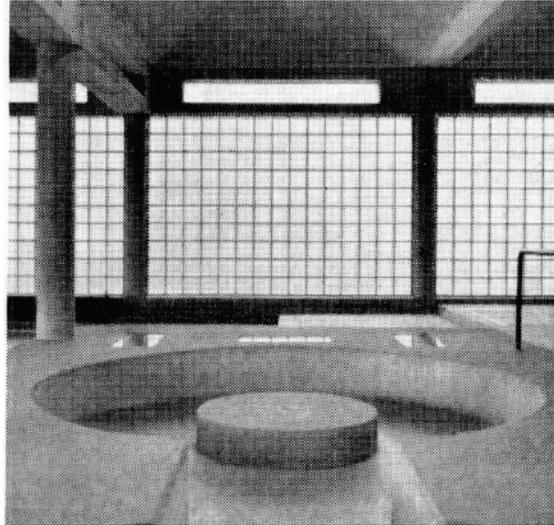
Just as a skeleton is not a person - a human being - unless it has one alive in and around it, so a building is not a building, a place not a place, until it has people in and around it experiencing its positive meaning-potential. They, not the construction, form or materials are the body of the space. If space allows people to be alive in it, it will 'become' place - an act of poetry and magic - people will know they are alive there and really appreciate 'space' as such.

Aldo van Eyck

*The Child, the City and the Artist*

Completed in 1960, van Eyck's design of the Municipal Orphanage in Amsterdam provides further evidence of a space activated by the users.<sup>33</sup> Van Eyck designed the orphanage as a small city and a large house for children aged two through twenty.

Photographs of the space void of children appear bleak, and the space sterile. However, photographs of the space full of children provide the viewer with lively imagery of an active, stimulating space. The photographs of children inhabiting the space indicates the playfulness with which van Eyck designed. A photograph, however, cannot portray his work with the same nuance. The activated photographs exposed the spaces' inherent character, and their ability to evoke movement and play from the inhabitants. In order to expose his designs' true nature, the photographs of his work required activation; they required people.



*fig. 45.* Top: Image of Orphanage without inhabitants.

*fig. 46.* Bottom: Similar space activated by a child chasing his ball.

Similar to the playgrounds, van Eyck provided simple forms that allowed for a multitude of activities, each suiting an appropriate age. For the younger children, van Eyck embedded mirrors into the floor and the sides of tables to encourage further investigation of his environment. Concentric, stepped platforms become mini-ziggurats for the children to climb on, sit on or jump over. When vacant, these objects and apparatus do not appear stimulating or engaging. In reality, they provided opportunities for infinite, active play.

Play wove itself into the narrative of the orphanage, as evident from the imagery of the project. The architecture provided opportunities for play both inside and outside. Van Eyck integrated playgrounds into the landscape of the orphanage, and brought many of the same forms and materials into the building itself. He wove play throughout the experience of inhabiting the orphanage to ensure that the children always had an opportunity to play. As in the Sonsbeek Pavilion, play lurked around every corner. Van Eyck designed the building to provide play in these childrens' lives. Once again, van Eyck inserted hope into despair, light into a darkness.

The works of van Eyck provide opportunities for active play; the architecture remains static to allow the players to move around them. Swings, teeter-totters and the slide, all components of typical North American playgrounds, allow the player to remain idle while the object performs the work. Aesthetically, the twisting slides and brightly-coloured objects bring a vibrancy to the image of the playground, which gives the illusion of a more engaging space. Even without children, these playgrounds appear spirited. Unfortunately, the kinetic apparatus limits the imagination and creativity of the players.



*fig. 47.* Child at play in van Eyck's Amsterdam Orphanage

Van Eyck exiled objects that did not promote creativity and imagination into his playgrounds.<sup>34</sup>

A play object has to be real in the way that a telephone box is real because you can make calls from it, or that a bench is real because you can sit on it. An aluminium elephant is not real. An elephant ought to be able to walk. It is unnatural as a thing in the street. [...] The primal, elementary forms, on the other hand, have an urban character and stimulate the imagination. They are not tied down to a particular function, but evoke all kinds of use, including unexpected ones. They offer children the means of discovering things for themselves. The climbing arch, for example, was not just for climbing and other gymnastics. It could be used as a hill to sit on the lookout or to hold a meeting, and when covered with a canvas it could function as a house.

Aldo van Eyck, via Francis Strauven

*Aldo van Eyck: The Playgrounds and the City*

The apparatus merely provided opportunity for finite play. Though less photogenic, Van Eyck's playgrounds provide opportunities for infinite play.

My horizon binds my narrative to me. Your horizon binds your narrative to you. Heraclitus states that "You cannot step twice in the same river."<sup>35</sup> Similarly, one may never step into the same space, nor share the same experiences twice. Instead, spaces change with each encounter. Meaning changes as the player's narrative changes and evolves. The player brings with him a new perspective with each visit. A place-affinity grows as the experience of visiting evolves.<sup>36</sup>

Places of [inherent place-affinity] - no other kind deserves to be called architecture have a beauty which transcends the formal in that together they coincide with the full gamma of simple unchanging human desires they are able to stimulate, accommodate and sustain. It is a beauty founded on acquired meaning carried in the mind through time and space called back by mental association, intensifying the imprint of former and subsequent place experience. Awareness of duration is increased; the temporal span of the present extended, hence a sense of being - of well-being - is achieved, because time is interiorized. Past and future are realized in the present, and man is at home with himself.

Aldo van Eyck

*The Child, the City and the Artist*

The simplicity of form and materials promotes an to increased variety and openness in activity by the visitors. The visitors embrace the twin phenomena. They become open to play. They play out their imaginative games in the charged spaces between objects, and on the elementary forms themselves. The culture and importance of play sits at the forefront of his argument in *Homo Ludens*. Huizinga states that play, in its most basic form, is a part of culture; is culture.<sup>37</sup> For van Eyck, play collects culture, and sits within it, the way the playgrounds of the post-war era sit within the vacant lots of Amsterdam.

Carse argues that culture exists as the infinite game to society's finite game. "Since culture is horizontal it is not restricted by time or space."<sup>38</sup> Governed by traditions rather than rules, culture shifts with time, geographic borders and the

players themselves. Culture renews itself like a garden, and, like play, cannot produce results. The

With play figuring so heavily in Huizinga, Carse and van Eyck's theories on culture, the importance of play in today's society, with today's adults, seems heavily off-balance. According to Huizinga, play is culture. If so, are we, as North Americans, lacking culture? We seem so heavily biased against play, except as spectators. Subsequently, play loses its freedom, even for the players. When players must play, they cannot play.

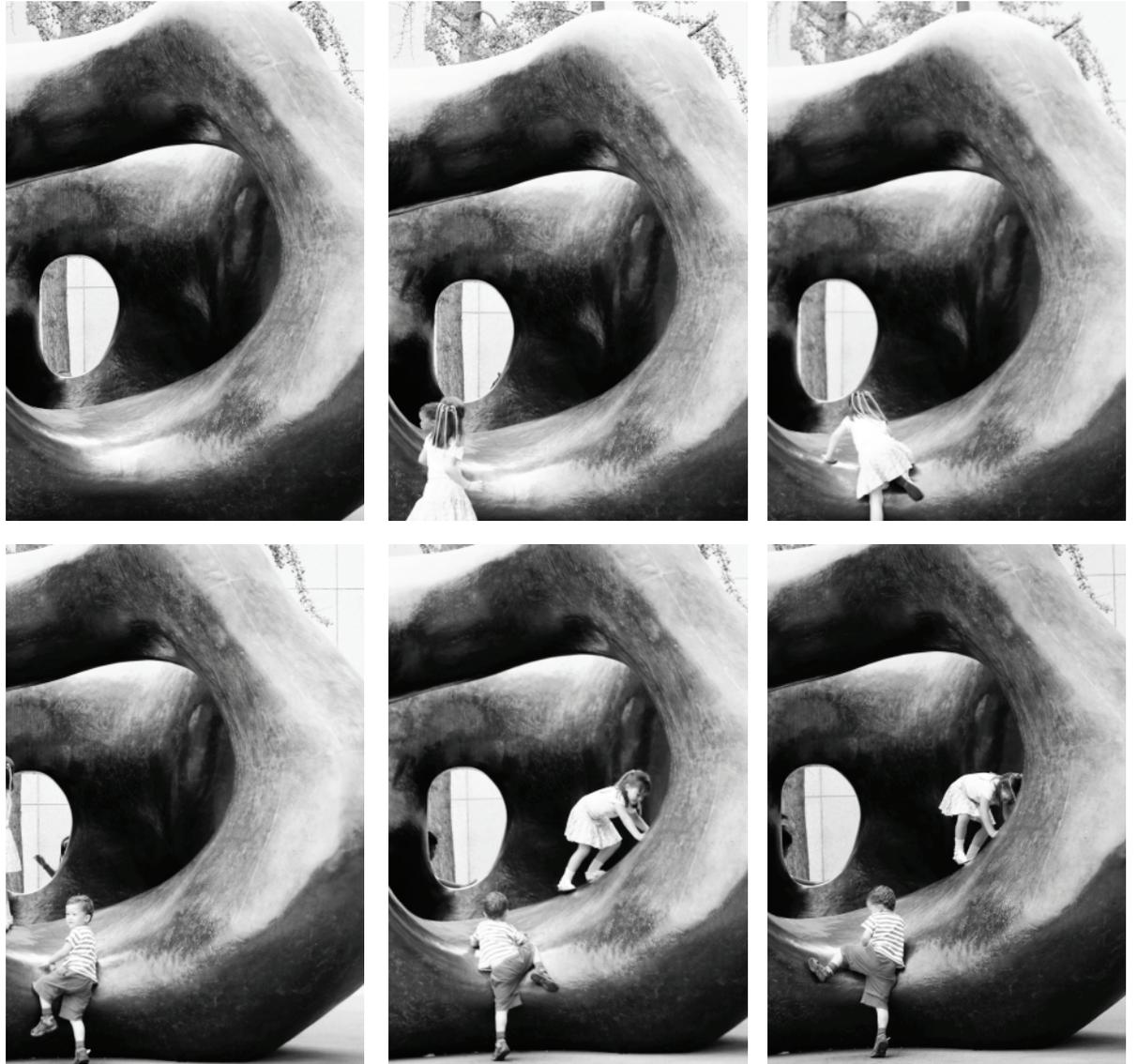
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*fig. 48.*

The child is quite literally ‘beside himself’ with delight, transported beyond himself to such an extent that he almost believes he actually is such and such a thing, without, however, wholly losing consciousness of ‘ordinary reality’. His representation is not so much a sham-reality as a realization in appearance: ‘imagination’ in the original sense of the word.

Johan Huizinga, *Homo Ludens*



*fig. 49.* Young children play on Henry Moore's Two Forms outside of the Art Gallery of Ontario in Toronto.





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## Stories of Play

*Paul Ricœur's Narrative Theory*

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I have played. I remember fondly the hours spent climbing on Henry Moore's *Two Forms* sculpture outside of the Art Gallery of Ontario in Toronto. Throughout my childhood, trips to the art gallery always included a stop to play at the sculpture. We would sit on it, or slide down its bronze curves. They were the perfect spot to eat an ice cream, escape the hot summer sun, or simply test our climbing abilities. As a child, it became a landmark of play in my city, a site I could identify within my own context of play, and a place I could call my own with each visit. As an adult, a trip to the gallery still includes a stop at the sculpture. It has ingrained itself as a part of my narrative, and woven itself into the narrative of the city, and my city.

Large-scale, sculptural installations take on many of the properties of van Eyck's playgrounds. The large, abstract forms often use a minimal material palette. They promote and encourage the visitors to engage with them. My own experience with the sculptural works of Richard Serra, Anish Kapoor, and Henry Moore, among others, have contributed to my own ideas of, and fascination with, play.

I have found great satisfaction in sliding around the curves of *Two Forms*, watching my reflection morph as I approached

and receded from *Cloud Gate*, or running between the great, steel walls of Richard Serra's sculptures. While playing with these great works of art, I realized that I was not alone. These artists contribute to rare sightings of adults at play. When in contact with these sculptures, most adults lose their inhibitions and play freely. The tactile sculptures beg to be touched; adults (as well as children) test their own limits of comfort by touching, running through or jumping on these installations.

Adults play all too little, trapped in a culture of North American seriousness. The sense of play brought out in adults through art, sculpture and the creation of complex spaces must be celebrated and investigated, not dismissed as immature or childish. It amazes me to observe how complex apparatus limit the players' imagination and creativity, whereas simple forms stimulate the players and perpetuate play.

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Artists of large-scale sculptural installations, such as Serra, Kapoor, and Moore did not necessarily intend play as the visitors' reaction to their work. I regard these artists as my playmates, as they contributed to play in my own life. After discovering that their intentions do not always match the reactions to their work, I sought out another playmate: Paul Ricœur.

Paul Ricœur reappropriated Aristotle's and Plato's theory of mimesis. Ricœur examined the stages and changes of an idea through its development (prefiguration), execution

Joviality of the player comes from within, but the object's static form acts as a catalyst. Often, the artist, architect or planner does not intend for the user to act the way he does. The more benign the form, the more the user may creatively express his actions against it. The user easily projects his own creativity onto the object.

In his book *Sculpture*, Richard Serra describes his work in highly academic terms.<sup>2</sup> As an artist, he places a high priority on the user's cognitive understanding of his work, as well as the user's phenomenological understanding of space when interacting with his sculptures. When discussing his own work, Serra avoids the words "play" and "fun". Ironically, visitors to his sculptures use those words frequently and exuberantly.

However, Serra exhibits many works in public spaces, including a large installation in the departures terminal at Pearson International Airport in Toronto. This exposes the general public, those not familiar with contemporary art, or Serra's large oeuvre of work, to a remarkable piece of sculpture and creation of space. The travelers may transform into players. They interact physically with a work of art not contained within a typical gallery space. The travellers play within the large steel walls of the sculpture, inside the vast, open space of the terminal.

Many visitors do not know or understand Serra's spatial and intellectual intentions behind the work, his pre-configuration. Instead, the visitors reconfigure the work through their own actions. The players do care that Henry Moore's *Two Forms* provides a place for climbing, laying and playing, though they do not often consider its artistic intentions.



*fig. 50, 51.* Anish Kapoor's *Cloud Gate* sculpture in Chicago's Millennium Park. The sculpture attracts both children and adults with its inviting form and mirrored surface.

(configuration) and the reaction to it (refiguration). An idea or a work of art changes dramatically from the conceived idea through to the reappropriation of the work by the viewing public. David Kaplan explains Ricœur's reinterpretation of Aristotle's theory of mimesis in his book *Ricœur's Critical Theory*.<sup>1</sup>

Ricœur proposes a revised conception of the hermeneutical circle based on a model of three stages of the Aristotelian notion of mimesis. The first stage represents the temporal, structural, and symbolic dimensions of human action that are "prefigured" by a narrative; the second stage represents the act of employment that "configures"; and organizes events into a story; the third stage represents the act of reading or listening that "transfigures" experience by connecting the world of the narrative with the world of the reader. Hermeneutics seeks to reconstruct and understand the set of operations by the acts of interpreting and understanding. Hermeneutics is an activity that configures and transfigures actions.

David Kaplan  
*Ricœur's Critical Theory*

Reappropriation of large-scale, sculptural art works by players adds a layer of meaning to the artists' intentions. When designing *Two Forms*, did Henry Moore know it would become an impromptu play-space at the corner of McCaul and Dundas Streets in Toronto? That while waiting for the streetcar, pedestrians would become players? That they would sit between the curves, play peek-a-boo through the sculptural voids, or climb from one *Form* to the next? Adults and children all participate in these playful interactions.



*fig. 52.* Richard Serra sculpture at the MoMA sculpture garden.

Aldo van Eyck acknowledged the reappropriation of objects and space by the user, and created environments that worked with the user's imagination. The elementary forms of his playground apparatus provide opportunities for exploration the same way that Moore's *Two Forms* does.<sup>3</sup>

The playgrounds do more than just elicit childish energy, however. The primal force of their compositions and their shapes is such that they are not overwhelmed by this energy, but indeed raise it to a new level. The play furniture incorporates the activity of the children who use it into the composition of the playground itself.

Francis Strauven

*Aldo van Eyck: The Shape of Relativity*

While van Eyck provided possibilities, it would have been impossible to predict all of the activities that his apparatus may support. Similarly, Serra's sculptures appeal to both the players' visceral and cerebral actions. The players' level of engagement occurs at the physical and emotional level, with players becoming attached to the site of play via the intensity and frequency of engagement.

Play impacts the myth of place, the myth of the person. The reconfiguration of object from artwork into play-space effects its narrative, and the narrative of the player. We create stories through our experience, and, through their re-telling, stories become myths. Carse states that "myths, told for their own sake, are not stories that have meanings, but stories that give meanings."<sup>4</sup> The reconfiguration of a story results in narrative. The player adopts the story, and, through his reinterpretation, makes it his own. "The resonance of myth collapses the

apparent distinction between the story told by one person to another and the story of their telling and listening.”<sup>55</sup> We create our myths through experience. By placing ourselves in a time and space, it contributes to the myth we hold of ourselves and the myth we hold of the place.

Stories are finite; myths are infinite. The reconfiguration of a story brings it into the infinite realm of myth. The insertion of oneself into a story reappropriates it from the ownership of another. It becomes your narrative. Carse places the individual at the centre of his own narrative. “The discovery that you are the unrepeatable center of your own vision is simultaneous with the discovery that I am the center of my own.”<sup>56</sup> I can see that you sit at the centre of your own cone of vision, but I may never see and understand your perspective. The scope of my vision expands as I move through time and space, as the horizon shifts and expands before me. Yet, I always remain at the locus of my own field of vision.

The unfolding of space occurs also through imagination, and the repurposing, or refiguration, of an object and space by the player. An object takes on new meaning to the user when he imagines van Eyck’s stepping stones as safe-havens in a river of lava. When those same stepping stones become a test of jumping ability they again take on an entirely new meaning. Carse extends the narrative of place to include these two, drastically different meanings. The place shifts. The narrative expands. “Stories that have the enduring strength of myths reach through experience to touch the genius in each of us. But experience is the result of this generative touch, not its cause.”<sup>57</sup>

The reappropriation of art and architecture by the public changes the narrative of the work, the place, and the players. The meaning shifts for each visitor, depending on his unique

use and perspective, and his relationship beyond the boundary of the space or the object. Circumstance changes the place, but also the perception of the place on behalf of the players. Over time, a person changes, a place changes. The circumstances no longer render the place the same. The player encounters each place for the first time and the last time, at the same time.

An openness and abstraction of space allows for time to overtake a place and compound its meaning. The more articulated or prescribed the architecture, the less the player may manipulate it.<sup>8</sup>

Extended meaning and function subsequently acquired has a very special quality because it reflects human response to the latent properties inherent in any profoundly conceived form. Its human content is increased precisely by the registering of these latent properties. They contribute towards the intensity of places that hold them in store. Here again real places express both the humanity that went into their making and the humanity they evoke and absorb. Their aesthetic impact, also, is appreciated by what is drawn from them through human contact. It is for this reason that I say; a place represents the appreciation of it - sensory, emotional and associative. Preassigned meaning and purpose is detected, transmitted and sustained by the people if the right need is understood and translated into form.

Aldo van Eyck

The Child, the City and the Artist

Van Eyck asserts the value of objects and spaces that successfully promote Ricœur's theory of spatial and active reconfiguration. The designer, in van Eyck's opinion, merely provides opportunity for interaction and exploration. They provide a

shifting horizon, rather than a clearly defined boundary. The player writes his own narrative through the interaction with these spaces and objects. He reappropriates the object into his player's world, and transposes his experiences from story to narrative.

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E m b o d i m e n t o f P l a y  
*The Sonsbeek Pavilion*

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I have played. I have played in and around Richard Serra's large-scale, cor-ten steel sculptures. It was while standing within his *Torqued Ellipse* sculpture at the Dia:Beacon Gallery in Beacon, New York, that I truly understood what it was to "experience space". The feeling of being on the "interior" of this great, shifting, metal artwork made me stop and think, "this is what it feels like to be in a compressed, or open, space". I wanted to yell to test the echo it would undoubtedly produce. I wanted to run between the walls and leap off of them. The possibilities for play became endless while experiencing this overwhelming sculpture.

Several years later, while on a co-op placement in New York City, the Museum of Modern Art (MoMA) held a retrospective exhibit of Serra's work, showing larger pieces of sculpture in their courtyard, and smaller works inside the formal galleries. The demeanor of gallery patrons changed dramatically between those inside the gallery and outside in the courtyard. Inside, most were quiet, respectful and observant. Outside, however, the same patrons, mostly adults, began to play.

The courtyard at the MoMA turned adults into children as they explored the sculptures that unfolded before them. These

steel walls, simple in form and material, complex in spatial creation, turned a set of gallery-going, serious adults into running, laughing, smiling adults. They were having fun. They were at play.

I have witnessed similar events at different times: at Storm King, the sculpture park in Mountainville, New York; on the Henry Moore sculpture, *Two Forms (1969)*, outside of the Art Gallery of Ontario; on the large, granite rock in Toronto's Yorkville Park; at Anish Kapoor's *Cloud Gate (2006)* sculpture in Chicago's Millennium Park, among others. In each case I have seen children at play, adults at play.

Individuals engage easily and viscerally with these large, static, ambiguous forms. How a sculpture appeared, what it means, who the artist is - these questions are secondary, or even tertiary to how it may be climbed on, sat in, or interacted with while deeply immersed in play. The player doesn't consider the intentions of the artist. His reconfiguration of an object or artwork has little interest in the artist's prefiguration.

I have played with these sculptures. From a young age through adulthood, they have been a source of great joy intellectually, as I progressed through school and learned the impact of these sculptures in the art community. However, they mostly brought me joy while using them as an abstracted jungle-gym.

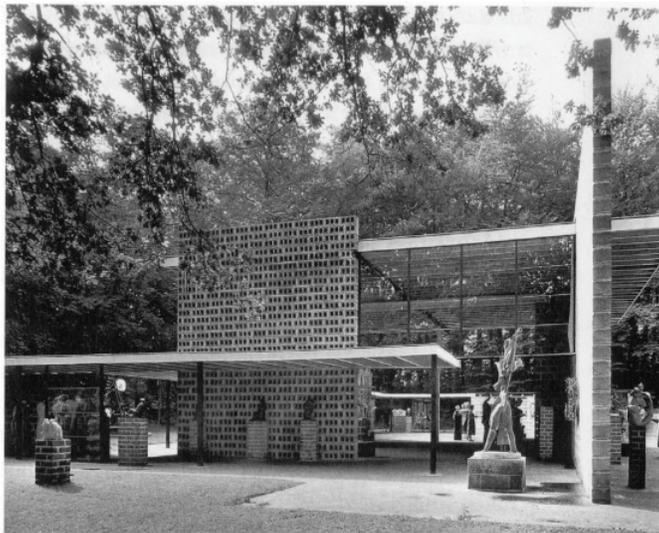
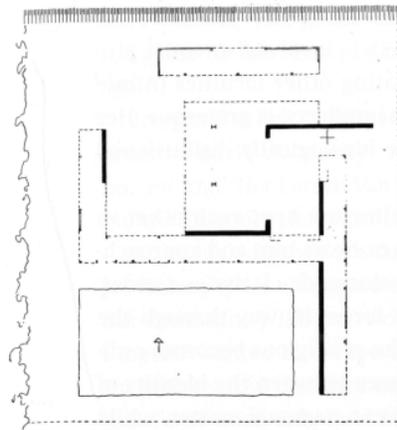
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Van Eyck designed the Sonsbeek pavilion, a sculpture garden located in a public park in Arnhem, the Netherlands in the summer of 1966.<sup>1</sup> It stood for that summer only, and thrilled the many patrons who got lost in its small network of pathways and open spaces.

A decade before Aldo van Eyck's Sonsbeek Pavilion occupied the site, Dutch Architect Gerrit Rietveld designed a temporary pavilion in the public part at Arnhem, a city known for its picturesque beauty and public parks.<sup>2</sup> Rietveld's pavilion caught the Dutch public of 1955 in the midst of a cultural resurgence. The after-effects of the Second World War had subsided, and the public had begun to exhale and regain its cultural identity. Rietveld's pavilion assisted in this cultural reemergence by inserting a sculpture garden into the park at Arnhem.

Rietveld's pavilion is steeped in the De Stijl tradition, which utilized pure geometries, colours and materials. Rietveld was a founding member of the Dutch movement that encompassed art and architecture. Abstract artist Piet Mondrian also belonged to this movement. The De Stijl tradition shaped the refined plan and section of Rietveld's pavilion. Rietveld used perpendicular and intersecting planes of hollow-core, concrete masonry units to seamlessly integrate the inside and outside of his pavilion, and bring the garden into the space. However, Rietveld's pavilion limited the surprise and exploration of the visitor within the space; the locations and even the perforations of the walls reveal the spaces to the visitor prior to entering it. From the approach to the building, the visitor knew what to expect spatially and experientially.

Unlike Rietveld's pavilion, van Eyck's design focussed on the renewal of experience. The experience within the pavilion



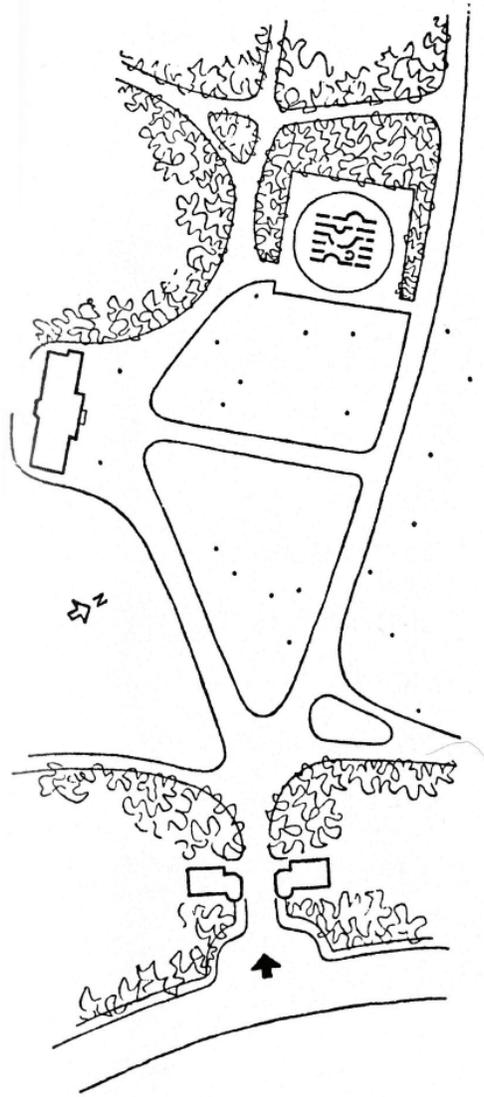
*fig. 53, 54.* Plan and photograph of Gerrit Rietveld's Sonsbeek Pavilion, 1955.

did not mirror its image, as walking through Rietveld's pavilion did. The spaces of van Eyck's pavilion unfolded unpredictably, and revealed more to the player than initially expected. The beauty of the pavilion rested in its simplicity, but also its unfurling spatial sequences.

This motion was reinforced by a diagonal line of sight extending from one extremity of the pavilion to the other. The resulting streets, passages and piazzas presented a far from unequivocal exhibition route. They held out an invitation to wander. A visitor who set his mind on following a systematic route, for example by taking one street at a time, would find himself continually diverted from this plan not only by the spatial twists and shifts, but also by the sculptures themselves, which occupied intersections and repeatedly pointed the visitor in a new direction.

Van Eyck's Sonsbeek Pavilion reflected both Johan Huizinga's theories in *Homo Ludens* as well as James Carse's in *Finite and Infinite Games*. Visitors approached the pavilion by way of a long, paved pathway from the park's entrance gates. The path revealed the front of the pavilion - a solid, concrete block wall with sculptures sitting in front of it. The path creates an anticipation in the visitor to enter into a sacred space of play as the view of the pavilion unfolds before him. As the visitor moved through the pavilion, and the horizon unfolded before him, he became a player. James Carse emphasized the importance of the horizon as the boundary for an infinite game.<sup>4</sup>

We are never somewhere in relation to the horizon since the horizon moves with our vision. We can only be somewhere by turning away from the horizon, but replacing vision with



*fig. 55.* Site plan of Sonsbeek Pavilion in Arnhem, the Netherlands.

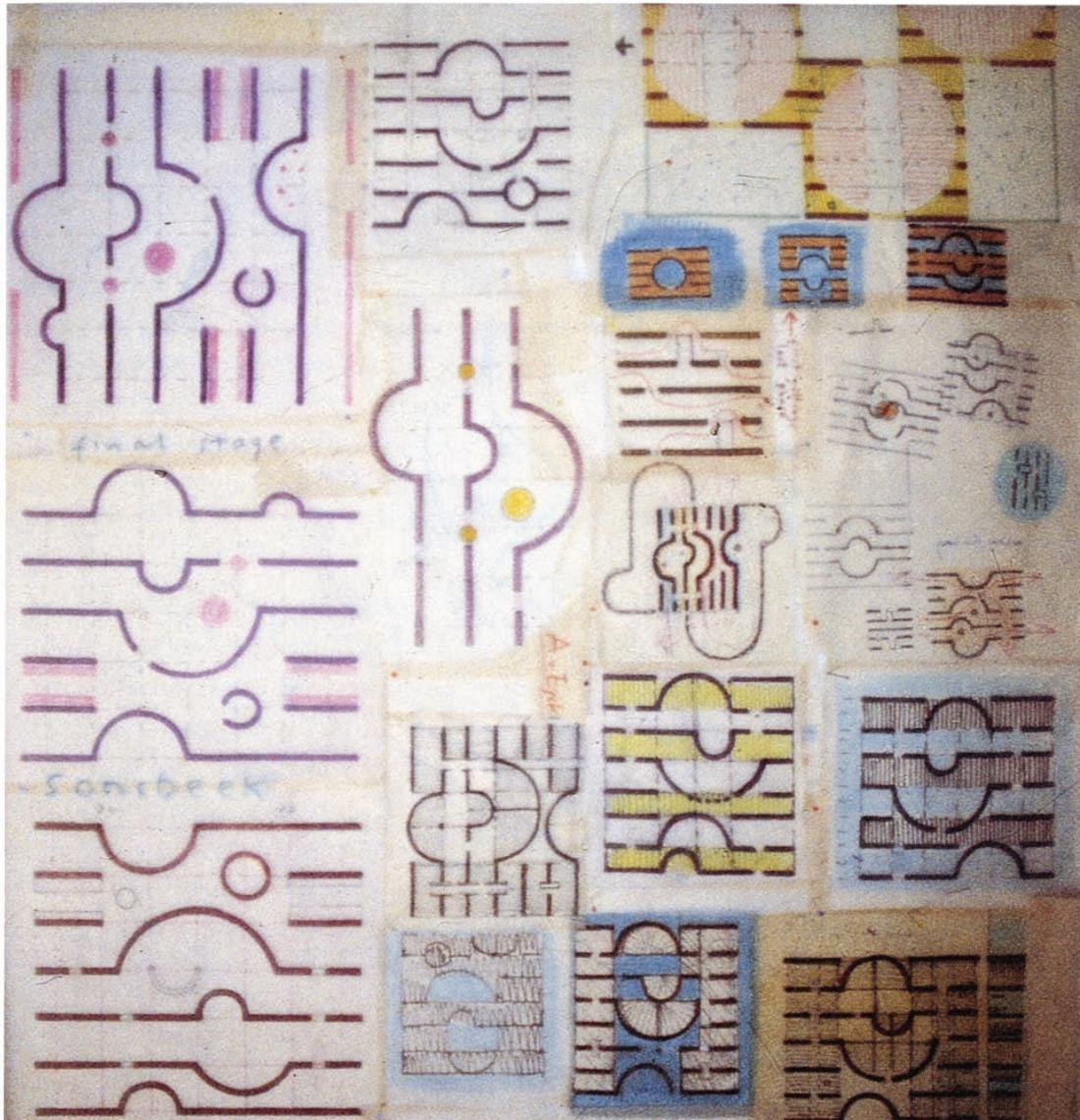
opposition, by declaring the place on which we stand to be timeless - a sacred region, a holy land, a body of truth, a code of inviolable commandments. To be somewhere is to absolutize time, space, and number.

James Carse

*Finite and Infinite Games*

The element of surprise continues to confront the players as the walls direct him through the space, past one sculpture to the next. Before long, the visitor has turned around to see the same sculpture he had encountered previously, from a different angle and with a different perspective. Shifting horizons bring about surprise, which Carse notes as an integral aspect of infinite play. “To be prepared against surprise is to be trained. To be prepared for surprise is to be educated.”<sup>5</sup> Infinite players understand that they will encounter surprise within the course of play. The path leading to the Sonsbeek Pavilion’s blank, concrete wall prepares the player for surprise. They do not know what lies beyond that first blank wall, though they do know that a new space awaits their arrival. As the pavilion unfolds, the player begins to anticipate that surprise lurks around every corner, though exactly what that will be changes over time and space.

Once the visitor reached the pavilion, the concrete paving that demarcated the path of approach to the pavilion, as well as the pavilion itself, suggested to visitors the division between play and reality. It exemplified Huizinga’s rule of play existing within a boundary of time and space. The boundary separated play as a sacred act within a sacred space from the seriousness of everyday life. Like Carse, Johan Huizinga also wrote of the sacred nature of play, and its demarcating edge.<sup>6</sup>



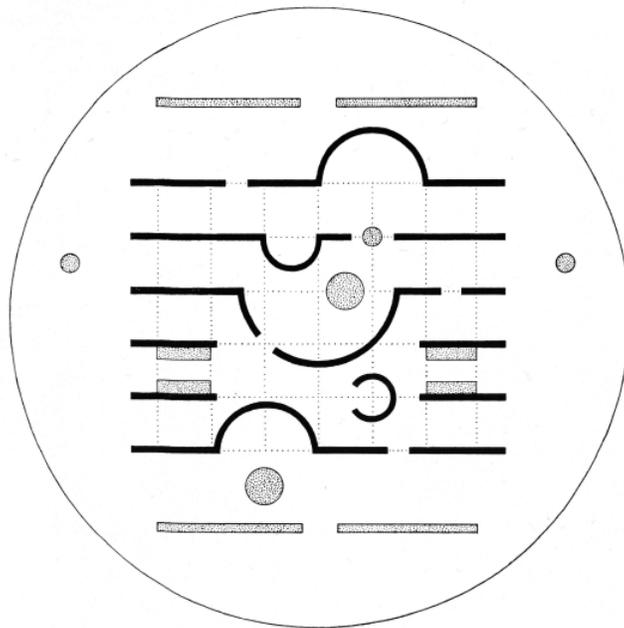
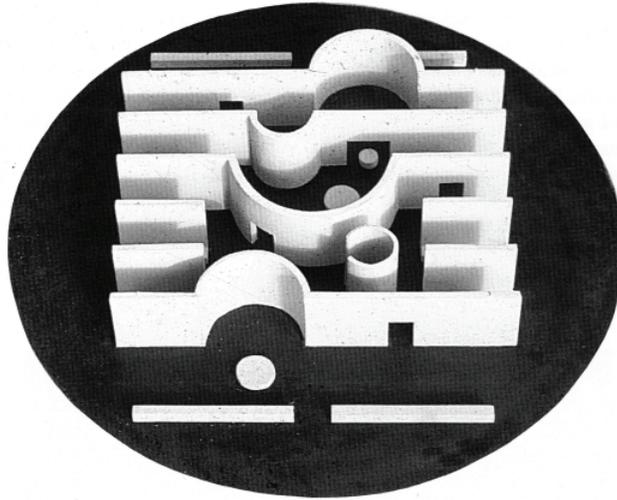
*fig. 56.* Design development of the Sonsbeek Pavilion's plan.

We found that one of the most important characteristics of play was its spatial separation from ordinary life. A closed space is marked out for it, either materially or ideally, hedged off from the everyday surroundings. Inside this space the play proceeds, inside it the rules obtain. Now, the marking out of some sacred spot is also the primary characteristic of every sacred act. This requirement of isolation for ritual, including magic and law, is much more than merely spatial and temporal.

Johan Huizinga  
*Homo Ludens*

The Sonsbeek pavilion created a magical environment where any and all human behaviours and emotions existed simultaneously. Siting the pavilion in nature heightened the playful, as well as the sacred, qualities of the plan. The forest itself provided the backdrop for Carse's infinite game. "Finite players play within boundaries; infinite players play with boundaries."<sup>7</sup> The boundaries of the Sonsbeek Pavilion provide the players with finite boundaries that contained an infinite series of pathways within it. Unlike a labyrinth, whose path continues from start to finish, the Sonsbeek Pavilion may be navigated in an infinite combination of routes. The walls present rules that appear rigid from the outside. However, once inside the pavilion, the breaks in the walls revealed an infinite game. The rules exist but are broken in order to perpetuate play. Carse states that "the task is to design rules that will allow the players to continue the game by taking these limits into play."<sup>8</sup>

From the approach to the pavilion, it appears as a series of tall, parallel walls.<sup>9</sup> Once entered, the apparent clarity quickly descended into confusion. Van Eyck removed large sections



*fig. 57, 58.* Axonometric drawing and plan of Aldo van Eyck's Sonsbeek Pavilion.

of the rectilinear walls and replaced them with semicircular ones. This created larger spaces for gathering and sculptures to interrupt the severity and weaving circulation that the parallel walls imparted upon the space. Van Eyck then sliced through both curved and straight planes to twist and turn the visitor in unexpected ways as he moved through the space. The sculptures provided landmarks and visual cues, and the more the visitor navigates through the space, the more they simultaneously became familiarized to it and lost within it. Francis Strauven describes the approach to the pavilion, and the subsequent surprise experienced once inside.<sup>10</sup>

Half hidden by greenery, it appeared from a distance to be scarcely more than a simple, occasional construction, a uniform horizontal volume made of concrete blocks covered by a thin, flat roof. But seen from closer, it gave the appearance of a series of parallel walls - six solid walls enclosing five narrow, parallel galleries. And, having entered between these walls, the visitor found himself to his surprise in an entirely different space, an exuberant space that unfolded inwards into a swirl of streets, open places, corners, alleys, gateways and towers; a maze of straight and round, convex and concave, intersected by bends and diagonal avenues.

Francis Strauven

*Aldo van Eyck: The Shape of Relativity*

The plan of the pavilion illustrates van Eyck's notion of "labyrinthian clarity", which "implies consecutive impression simultaneously sensed through repeated experience."<sup>11</sup> Labyrinthian clarity, like twin phenomena, implies an inherent dichotomy. Discovering a labyrinthian space reveals a clarity only after multiple encounters with it. Time brings about the



*fig. 59.* View of the Sonsbeek Pavilion from the approaching path. The front wall conceals the rich spaces within.

change in attitude and recognition of a space. Over time, the visitor understands and recognizes the nuances of the space, and reveals a clarity to the visitor.<sup>12</sup>

The labyrinthian impact the distance first gave makes way by degrees for a rich variety of size qualities, all of which confound the limited quantitative meaning of small and large, many and few, far and near.

Aldo van Eyck

*The Child, the City and the Artist*

The pavilion heightened the players' perception of scale as they move through the space. The plan creates large, open spaces as well as more intimate ones, while each space offered views diagonally through to adjoining spaces or the adjacent forest. The more the player began to explore and lose themselves in the space, the more the space became clear to them; the paradox of labyrinthian clarity.

The pavilion framed the sculptures differently depending upon which way the player faced. By placing them "in the round", van Eyck provided the visitors with multiple views of each work of art, a departure from the rigid placement of sculptures in conventional gallery settings. In Francis Strauven's book *Aldo van Eyck: The Shape of Relativity*, he writes of the significance of van Eyck's plan and its labyrinthian character.<sup>13</sup>

The clever thing about these passages and lines of sight that cross the building in all directions, is that you keep coming across the same sculpture from different directions. When the arrangement of an exhibition is all too orderly, you're inclined to pass by a piece that at first glance looks unattractive. In van Eyck's pavilion, you



*fig. 60.* Photograph of reconstructed Sonsbeek Pavilion. The regularity and rhythm of the walls as viewed from outside of the pavilion belies the complexity of space that lies within.

almost stumble into the sculpture - you come across a piece you originally ignored but it captures your attention after all when you approach it from a different angle.

Francis Strauven

*Aldo van Eyck: The Shape of Relativity*

Each view of the sculpture provided the viewer with a new perspective of the work. In this way, the visitor never experienced the same sculpture twice.

By de-centralizing the plan like in his centrifugal playground plans, van Eyck forced each visitor to truly observe each sculpture from several angles. The context of the form changed its aesthetic value when viewed against the concrete block wall from a passageway or against the foliage of the forest beyond. This changed and democratized the context of viewing sculpture from the typical gallery experience into a playful one; it gave the public complete access to the sculptures rather than an institution keeping them under watch. The admission-free, park setting in Arnhem brought culture into play and play into culture. Huizinga understood the creativity associated with the arts, and the arts as a visual, outward portrayal of culture.

Huizinga also attributed the creativity involved in the production of artworks as a playful quality. The play attributed to the sculptures themselves instilled the visitors of the pavilion with play. The artists' free-expression of form transfers into the viewer, who then reconfigures the artists' intentions, and feeds his latent creative energy.<sup>14</sup>



*fig. 61.* View of Sonsbeek Pavilion from an interior piazza.



*fig. 62.* View through Sonsbeek Pavilion from periphery.



*fig. 63.* Photograph - children playing in original Sonsbeek Pavilion



*fig. 64.* Photograph - adults playing in re-creation of Sonsbeek Pavilion



*fig. 65.* Photograph of sculpture in “interior room” at van Eyck’s Sonsbeek Pavilion (1965).

In the plastic arts we found that a play-sense was bound up with all forms of decoration in other words, that the play-function is especially operative where mind and hand move most freely.

Johan Huizinga  
*Homo Ludens*

Van Eyck's theory of twin phenomena expresses itself through the Sonsbeek Pavilion. The pavilion satisfies both polarities of several dichotomies: rest / motion, many / few, open / closed, labyrinthian / clear. It sits in nature as an in-between place; not fully enclosed, but not fully open due to its innocuous, translucent roof. Like much of van Eyck's work, the pavilion functions as both a small city and a large house. Strauven describes the pavilion's position within this twin phenomenon. "The visitor had entered a miniature city, as it were, a city moreover with a richly varied population."<sup>15</sup> Van Eyck describes the corridors as arteries that pump visitors through the pavilion, while the openings created by the cylindrical walls become miniature piazzas.<sup>16</sup>

A houselike city and a citylike house should, I think, be thought of as a configuration of intermediary places clearly defined. This does not imply continual transition or endless postponement with respect to place and occasion. On the contrary, it implies a break away from the contemporary concept (call it sickness) of spatial continuity and the tendency to erase every articulation between spaces, i.e. between outside and inside, between one space and another. [...] Architecture (sic urbanism) implies the creation of 'interior' both outside and inside, for 'exterior' is that which precedes man-made environment; that which is counteracted by



*fig. 66.* View of the Sonsbeek Pavilion's interior space. The curved walls create large, unexpected spaces that reveal the rooms and sculptures beyond.

it; that which is persuaded to become commensurate by being interiorized.

Aldo van Eyck

*The Child, the City and the Artist*

The Sonsbeek pavilion straddles this dichotomy by being both an interior and an exterior space. Van Eyck created spaces to satisfy a single individual as well as spaces for larger groups. The scale of the pavilion, as well as the spaces within it, created a multi-layered experience catering to infinite games of many players and infinite games of few players.

The intrigue of the Sonsbeek Pavilion lies in its labyrinthian qualities. The player's path of travel weaves and turns frequently, offering views of the forest, glimpses of sculptures in the next "room" and views of others playing in the space. Van Eyck did not offer sweeping vistas of the sculptures or of the forest. Instead, he provided the players intimate spaces to view the art and to play amongst the sculptures. The interior rooms provided larger moments of gathering and pause amongst the narrow passageways that linked them together. The niches that van Eyck created to house sculptures and seating created interesting and dynamic piazzas and anchored the weaving corridors that connected them. Between the large, open areas, the pavilion created nooks and crannies. The sculptures scattered throughout the pavilion provided focal points of reference for the player as he moved through and around the pavilion. However, with the pavilion's maze-like circulation, the sculptures also became landmarks.

Van Eyck echoed Johan Huizinga's thought on play and culture through his designs for the playgrounds that permeated



*fig. 67.* Visitors meandering through the Sonsbeek Pavilion's open spaces.

Amsterdam as well as his design of the Sonsbeek Pavilion in Arnhem. The pavilion, like the playground, is a play-space. Its original design removes stoicism from the typical experience of visiting a sculpture garden. It places play alongside great works of sculpture, rather than placing play outside of the bounds of the pavilion. The open piazza and enclosed streets integrated play with sculpture, intertwined play with seriousness.

The serious nature of the Sonsbeek Pavilion's severe plan and material palette integrated art and architecture with a sense of play. The sculptures exhibited by artists Alberto Giacometti, Constantin Brancusi and Jean Arp, amongst roughly thirty others, added another dimension to the space. Van Eyck curated many sculptures of the human form to fill the pavilion. These static bodies in space created frozen moments in time amidst the ebb and flow of the moving bodies. The sculptures lent an active energy to the pavilion, further evoking play from the visitors. The plan of the Sonsbeek Pavilion, much like van Eyck's playground designs, takes on labyrinthian qualities rather than a formal, hierarchically organized plan.

The original Sonsbeek Pavilion stood in the park in Arnhem, during the summer of 1966, and was taken down shortly after its construction. The beauty and architectural significance of the pavilion stood in the memories of its visitors, architectural critics and historians. In 2005-6, the Kroller-Muller Museum in Otterlo, the Netherlands, reconstructed the Sonsbeek Pavilion twenty kilometers from its original site.<sup>17</sup> Hannie van Eyck, Aldo's widow, oversaw the process to ensure the new construction respected the original design. Unlike the original pavilion's location in a public park, the reconstructed pavilion sits under the jurisdiction of a formal gallery. Though the



*fig. 68.* The corridors of the Sonsbeek Pavilion's reconstruction. The compressed spaces open into the larger piazzas.

recreated pavilion appears identical to its original counterpart, its context imbues it with a different quality.

Like his playgrounds, van Eyck designed the pavilion as a space for play and exploration. The Sonsbeek Pavilion fostered infinite play. The games associated with the old pavilion reflected its siting in a public park. The museum setting removed democracy from the pavilion. Instead of a pavilion for the community, the new pavilion required an admission fee to be experienced. The spatial qualities of the pavilion remained the same, but it no longer permitted the same freedom in the players' actions. Once an individual enters into any museum, their behaviour and actions change. The individuals no longer belong to the community; they suddenly belong to the museum. They have become players in a finite game. The privatization of the Sonsbeek Pavilion changed its original intention and overarching ideals.

The Sonsbeek Pavilion's original construction during the Cold War caught the Dutch public holding its collective breath. Through its construction, van Eyck provided a space for play and joy during a tense time in history. The pavilion provided a foil to the mood that had pervaded the collective consciousness of the city, country and world at large.

In 2006, no such political tension filled the air. The reconstruction provided architectural historians and admirers the opportunity to experience a once-fleeting moment in architecture, rather than provide an emotional respite. The circumstances of 1966 and 2006 vary greatly, which influences the overall temperament of the visitors. It raises the question of whether the the experience of visiting the pavilion loses its significance when the visit becomes contrived. Since Carse

notes that if we are not truly free we cannot truly play, are the players at the new Sonsbeek Pavilion truly playing?<sup>18</sup>

The pavilion's labyrinthian plan offered a different set of boundaries and horizons within which the game may play out. The player shifts through space, at the centre of his own field of vision. The spaces unfold around him as he navigates through the pavilion. However, he does this with an inhibition caused by the museum's environment. Within a gallery setting, a serious tone falls over the experience. The visitor always remains a visitor; he never fully transforms into a player. He cannot not act with the same freedom that a guest of the original Sonsbeek Pavilion might.

The recently reconstructed pavilion does not coincide with a time of tragedy or distress for the people of the Netherlands. Its recreation came at a time of relative economic and political success. The citizens of the Netherlands, and of Arnhem, specifically, do not need a distraction or reinvigoration of culture manifested through an architectural intervention. Instead, the reconstruction signifies a return to art, rather than a revitalization of cultural zeitgeist. The pavilion becomes "art for art's sake", rather than a rallying cry for the city and its attitude.

The new pavilion acts as a mnemonic device for those who played in the original Sonsbeek Pavilion in the summer of 1966, and lost themselves for a few hours in its rooms and corridors. Though the place has changed, the physical reminder of the pavilion serves as a memory trigger for the playful experiences amidst the turmoil of the Cold War.

The frequency with which a player plays in the same location affects the affinity the place holds in his memory. As

the Sonsbeek pavilion only stood for one summer, the memory of it holds strongly in the minds of those who experienced it first-hand. Van Eyck understood the emotional value of place in memory.<sup>19</sup>

The effect of memory often intensifies the impact of a particular occasion in a particular place. Other occasions similar or dissimilar that took place in other similar or dissimilar places are telescoped into the temporal span of the present, irrespective of time or space distance. That memory intensifies the sensory impact of places encountered is obvious. To encounter the same place several times at short intervals under similar or dissimilar circumstances, or to encounter the same place again after a long period, is a different experience.

Aldo van Eyck

*The Child, the City and the Artist*

The visitors returning to the pavilion after a forty-year absence encounter the same space, but with a completely different perspective. The space may be the same, but as different people, they approach it from a completely different vantage point. A new game opens up to them. Though the boundaries remain the same the rules have changed.

The Sonsbeek fulfills Carse, Huizinga's and van Eyck's own notions of play. In it, van Eyck designed a space that unfolds and expands over time, though within the strict confines of its concrete walls and demarcated flooring. The pavilion takes the lessons van Eyck established and learned through his playground designs and concretizes them in a more formal manner. The inclusion of artwork brings the pavilion into a



*fig. 69.* Young child exploring the Sonsbeek Pavilion.

territory the playgrounds did not occupy; the art grounded the pavilion and brought a reality to the design. However, the art did not limit the play within the pavilion's walls. Instead, the art integrated itself into the game, acting as landmarks within the space, or foils to play against.

Through his architecture, van Eyck formalized another, distinct design for play. The Sonsbeek Pavilion provides a play-space for adults and children, for the principles of an unfolding horizon line and elementary forms defies age and experience. The joy of the pavilion does not limit itself to a certain demographic, and therein lies its elegance. Without the art, the space still vibrates with a tension that leads to playful exploration. The architecture itself provides the catalyst for play.

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P l a y o n P l a y  
*The Sonsbeek Pavilion at St. Louis*

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I have played. And, for all of the playing I have done, I find it nearly impossible to reflect on the past seven years projecting the inclusion of a child's life onto my own. Had I raised a child over that time, I fear I would not have played at all.

Without going through the same experience myself, I will never completely understand what the teenage mother encounters daily, or how her life has changed since becoming a parent. I will always be on the outside, looking in. These young women are not too far removed from childhood, where play comes naturally and frequently into daily activities. The natural inclination to play has not yet been completely eradicated from their natural impulses. However, the teenage mother now faces a situation that relies on the accomplishment of finite games, where the luxury of playing in an infinite capacity becomes unrealistic.

The focus on work, business and finite games burdens most North American adults. Play in play-spaces, or play in daily routines simply does not exist. These women, and all adults, need to regain play in their lives. If a player begins to play freely and openly, he actively invites more play into his life. Play breeds play. The insertion of a small amount of

play, or a small play-space, will increase and encourage more play in these womens' lives. For me, the instances of play in my childhood through my young adulthood have proliferated through my education, my interaction with art and my life.

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Carse, Huizinga and van Eyck have provided a framework within which to explore and expand my own ideas of play. Their theories overlap with the intention to highlight the importance of play in culture. By integrating Huizinga's theory of *Homo Ludens*, man the player, with Carse's of *Finite and Infinite Games*, the case may be made for the proposed intervention. The students, many in an emotionally dark place, require play to lift themselves out of it. The playground acts as a catalyst; a finite location in the larger conversation of play. The boundaries, hopeful to bleed into the school, community, and students' lives, shift with the viewer, imbuing a landscape with play.

The proposed intervention, the Sonsbeek Pavilion at St. Louis school, provides a playful response to a site in need and the play-theories I have explored. Through my research, I have played. I have explored texts and theories and architecture. I have discovered that in architectural expression, there is a shifting, horizontal boundary that allows for multiple answers to a single question. In James Carse's eyes, I have become

the proliferator of ideas, and the narrator to the story that he, Huizinga and van Eyck have written.<sup>1</sup>

Infinite players are not serious actors in any story, but the joyful poets of a story that continues to originate what they cannot finish.

James Carse

*Finite and Infinite Games*

The Sonsbeek Pavilion, the concrete beacon of infinite play, is serving as the case study to be inserted onto the grounds at St. Louis. It is a sketch of what could be; a collage on the grounds of an adult education centre lacking in play. The pavilion, though not designed as a play-space, satisfies the rules of play that my play-mates have established. It encapsulates the play-theories presented by James Carse, Johan Huizinga and Aldo van Eyck's own writing. The pavilion creates a specific temporal and spatial boundary within which any multitude of games may play out.<sup>2</sup>

In play we may move below the level of the serious, as the child does; but we can also move above it - in the realm of the beautiful and the sacred.

Johan Huizinga

*Homo Ludens*

The paving, walls and roof of the pavilion create a distinct, sacred space for play. They walls, with their surprising fissures and curves, satisfy the visitors' curiosity, and create the shifting horizon line of infinite play. The visitors transform into players. The pavilion inserts lightness into a place - a school

and community - of darkness. The pavilion satisfies a need for play on a site where play does not exist.

The Sonsbeek Pavilion does not provide an answer to play at St. Louis. It provides a possibility; a viable option for play. The creation of an infinite play-space could imbue a sense of joyfulness, lightheartedness and fun into the lives of adults. It could bring them a taste of childhood while they are still firmly rooted in adulthood. A place for children and adults to engage freely, actively and creatively with their surroundings, with each other. It could bring a sense of nostalgia while still challenging adults to explore in new ways, rather than falling back on old habits, games and actions.

The Sonsbeek pavilion provides the possibility for the adults and children, students, and community surrounding St. Louis to engage in infinite play. Like van Eyck's playground designs, he has designed a static object that encourages movement and exploration within its boundaries. It does not dictate use, or place any expectations on the players. It offers room for movement, growth and continual exploration.

St. Louis Adult Learning and Continuing Education Centre in Cambridge, Ontario is serving as the testing ground for an infinite playground. St. Louis requires an infinite play-space to inspire and evoke play from its adult student body, specifically the single mother and her children, but also the surrounding community and city of Cambridge at large. The city of Cambridge contains minimal green space, and even fewer places for communal gathering. It has no outdoor spaces that encourage growth, exploration or creativity. The site, as it stands, contains a school, though it does not foster a community. The students leave as soon as their classes end, and

the neighbours do not step foot on the school's empty property. They have no need to.

Should the Sonsbeek Pavilion be recreated at St. Louis, it would have a significantly different feeling than its previous iterations. Inserting the Sonsbeek pavilion could serve as a new destination within a city in desperate need of a public space. Cambridge needs to unite the citizens in order to foster a sense of community. Though not nearly as severe as post-war Amsterdam, the city of Cambridge has suffered a loss of culture and population in its downtown centre, which currently lacks any programmed public spaces to support infinite play of individuals or groups. Cambridge's urban centre contains large swaths of open spaces, but nothing to evoke or support play within them.

The Sonsbeek Pavilion would provide the community with the opportunity to play. Though the Waterloo Catholic District School Board claims ownership of the land, the community has full access to the school's grounds, which brings the pavilion under the jurisdiction of the school, but the emotional proprietorship of the general public.

Unlike the pavilion's reconstruction in the Kroller-Muller Museum in Otterlo, a re-creation of the pavilion in Cambridge would be removed from the museum setting, and placed back into the hands of the public. The playful nature of the pavilion prevails over the seriousness of the museum. Play reigns supreme in and around the pavilion's concrete block walls.

Aldo van Eyck designed the Sonsbeek Pavilion around a curated selection of sculptures from the post-war era. However, even without those sculptures, the pavilion's structure maintains a powerful presence while encouraging play within its walls. The art within the walls of the pavilion could become a point of



*fig. 70.* Site Plan of the Sonsbeek Pavilion inserted onto the front space outside of St. Louis Adult Learning and Education Centre.

interest and within the school; a challenge for the students and their children to create pieces of art worthy of display in a public setting. This could provide the students with another outlet for play and encourage creativity both inside and outside of the classroom. It would also maintain the pavilion as a concrete playground, rather than an ephemeral play-space. By keeping the art within the pavilion's walls, the play becomes anchored by finite elements that allow the players to acknowledge the rules of play and spatial relationships of the pavilion, but, like the punctures that break through the rigidity of the walls, the players may break the rules to extend their game.

An infinite playground at St. Louis could charge the school with play in and outside of the classroom. A new play-space would imbue the school and surrounding community with renewed energy. It could provide the teenage mothers and their children with a place for play. The new space would provide all citizens a place of meeting, play, and exploration; a site where neighbours and students could interact, connect and collaborate. Play becomes the element that ties adults and children, neighbours and students together, creating a new locus for meeting and memory in the community.

A play-space at St. Louis may create a new destination for the city of Cambridge. A play-space in Cambridge would provide opportunities for movement and interaction between players, the site and one another. As Huizinga suggests, a site of play brings with it a sense of importance and a sense of community.<sup>3</sup>

The more 'difficult' the game the greater the tension in the beholders. A game of chess may fascinate the onlookers although

it still remains unfruitful for culture and devoid of visible charm. But once a game is beautiful to look at its cultural value is obvious; nevertheless its aesthetic value is not indispensable to culture. Physical, intellectual, moral, or spiritual values can equally well raise play to the cultural level. The more apt it is to raise the tone, the intensity of life in the individual or the group, the more readily it will become part of civilization itself.

Johan Huizinga  
*Homo Ludens*

The intervention at St. Louis invites, engages and encourages exploration of the site by its visitors. By creating a communal locus on the site, the school integrates itself into its community. Its identity as a school for “misfit” adults could shift into a more favourable one that emphasizes the insertion of play into a landscape desperately in need of it.

By inserting a play-space at St. Louis, I hope to challenge the school’s present condition. The current condition at the school renders the ample outdoor space useless. It does not see the value of play, or even the integration of the outdoor space with the education that occurs inside the institution.

The school itself sits back from the street, which further separates it from its surrounding neighbourhood. St. Louis has become a vacuum rather than a node within the community.

Like Friedrich Froebel’s educational gifts, the pavilion would offer the students the opportunity to learn through play. The banality of the concrete walls provides the students with opportunities to run, jump and play between them, while learning about their own comforts and limitations. The plan of

the pavilion takes on the simplicity of Froebel's block designs. By using a combination of horizontal and cylindrical walls with basic formal principles, van Eyck executed a plan of simplicity and elegance. Froebel's students arranged sticks and blocks in a similar manner, relying on the simplicity of each element to create a dynamic and coherent image. The simplicity resonates with the players as it permits for dynamic actions, similar to the simplicity of the stepping stones in van Eyck's playgrounds, or the tall, cor-ten steel walls of Richard Serra's sculptures.

The concrete walls obscure the front of the school, bringing play into the forefront of peoples' minds when associating the site with its surrounding community. It aggressively asserts the importance of play into the site's consciousness. Similar to the approach to the pavilion approach at Arnhem, the blank, concrete walls invite curiosity. They do not reveal the play-spaces within; they entice passers-by to come and discover what lies beyond the first, austere wall. They invite the visitor to explore, to inhabit the space and to play. The pavilion also gives the school's faculty and students a constant, visual reminder of the importance of play in their lives and education. The confluence of play and education, the integration of site and pedagogy reinforces the necessity and power of play in the lives of the students, in the community and in culture.

The experience of playing in the pavilion changes as the individual moves through space, but it also unravels over time. The experience of playing in the pavilion as a child versus as an adult varies dramatically. However, unlike the forty year gap between the Sonsbeek Pavilion's original construction in Arnhem and its reconstruction in Otterlo, the visitors to the St. Louis site will encounter play constantly. Each student unwraps his gift box to reveal the elementary shapes within.



*fig. 71.* Collage of Sonsbeek Pavilion at St. Louis, as seen from Beverly Street.

Like Froebel's blocks, the pavilion reveals itself to the player differently each time he engages with it.

Van Eyck identifies the importance of circumstance on the impression of place. Like the Heraclitian river, the experience of engaging with the pavilion, or any space, differs each time the visitor enters it. Time factors heavily on experience. For those who encounter the pavilion daily, it takes on a familiar presence in their routine. Play becomes integrated into their lives rather than an overlooked or forgotten experience. It endears the people to the place, and fosters a relationship between individual and site. Van Eyck's network of playgrounds exemplified this. The citizens encountered play daily, if not several times a day. Play inserted itself as a fixture in the lives of these citizens. The players, especially children, could easily recognize the familiar forms - the concrete stepping stones or metal climbing domes - as extensions of their own games throughout the city fabric. Van Eyck describes the importance of place-affinity:<sup>4</sup>

Places of [inherent place-affinity] - no other kind deserves to be called architecture - have a beauty which transcends the formal in that together they coincide with the full gamma of simple unchanging human desires they are able to stimulate, accommodate and sustain. It is a beauty founded on acquired meaning carried in the mind through time and space called back by mental association, intensifying the imprint of former and subsequent place experience. Awareness of duration is increased; the temporal span of the present extended, hence a sense of being - of well-being - is achieved, because time is interiorized. Past

and future are realized in the present, and man is at home with himself.

Aldo van Eyck

*The Child, the City and the Artist*

The Sonsbeek pavilion would be encountered by all students and staff daily, which would lead to an increased place-affinity amongst them to the Sonsbeek Pavilion as well as the school itself. It would bring a constant exposure to play that would become ingrained into their daily lives. Play would become a habit, rather than an anomaly. The pavilion becomes a catalyst for play on a site where play did not previously exist.

The Sonsbeek pavilion would provide opportunities for surprise and would challenge each players' knowledge and experience. Carse expresses the importance of surprise by stating that "[t]he infinite player does not expect only to be amused by surprise, but to be transformed by it, for surprise does not alter some abstract past, but one's own personal past."<sup>5</sup> Surprise alters the consciousness of the player; once it has been introduced, the player begins to expect the surprise, rather than the outcome. Finite play limits surprises through strict adherence to the acknowledged rules. However, infinite play brings with it surprises in order to perpetuate the game .

Placing the Sonsbeek pavilion on St. Louis' grounds replaces the known conditions. Presently, the blank space in front of the school offers no surprises as it displays to the cars and passers-by on the adjacent street any and all activity that occurs there. The Sonsbeek Pavilion, with its labyrinthian plan and structuralist approach, dramatically changes the landscape of St. Louis and its community. The pavilion would provide

opportunities for play, surprise and exploration on a site that presently sits empty. It would dramatically change the nature of the school building, but also the attitudes of those who encounter it. They would brace for surprise, rather than accepting the known. The infinite pathways through and around it, coupled with the players' changing attitude alters the experience of play with each visit. The pavilion would insert play into a place of darkness. The function of the Sonsbeek Pavilion at St. Louis does not stray far from the meaning behind its original construction, van Eyck's oeuvre of work and Huizinga's underlying historical bias; rehabilitation of place through play.

The pavilion would provide a massive change for the students at St. Louis, and also the members of the surrounding community. The single mothers at St. Louis, desperately in need of play, would finally receive it. The ambiguity of space in the pavilion would encourage the mothers to play, explore and engage with their surroundings and with the community. The pavilion could become a hub of activity. The spaces van Eyck created support all types of behaviour without judgement. Perhaps over time play would become an accepted activity amongst adults on the site. This new attitude would hopefully extend into the rest of the city. The Sonsbeek Pavilion supports myriad activities that satisfy both dichotomies of twin phenomena: many/few, small/large, motion/rest, banal/sacred. The pavilion provides both large and intimate spaces for individuals as well as groups of varying sizes. Classes could be held amongst the sculptures on warm days, integrating the programme of the school and education with that of the pavilion and play. Infinite play acts as the connective tissue between inside and outside.



*fig. 72.* Collage of Sonsbeek Pavilion at St. Louis.

The relocation of the pavilion from a forested site to an urban schoolyard dramatically changes the context of the intervention. The school itself acts as an infinite playground, providing play through the classroom experience. Similar to a library, the school setting provides play-mates for those interested in engaging in the game. The amount and depth of exploring the player engages in depends solely on his own interest and volition. The pavilion merely provides a catalyst. It is up to the player to decide upon his own actions and intentions.

The single mothers at St. Louis require an intervention on the site. The surrounding community and the greater city of Cambridge needs a space for play, as well. They need a space for themselves, and their children, to play. Van Eyck, through his sensitive and subtle designs offers these women many opportunities for play. His playgrounds provide infinite combinations of stepping stones, climbing domes and sandboxes to satisfy any child or adult's imagination and creative impulses. However, the Sonsbeek Pavilion is a better fit for the site. It is a concrete, singular entity, rather than a particular within a network. The pavilion provides the students a layered spatial experience that will continue to influence them and their experience of the site each time they visit it.

The Sonsbeek Pavilion would become a beacon for activity, exploration and integration on the site. Its simplicity of both form and material would provide a catalyst for emotional engagement between user and site; it would provide a catalyst for infinite play.

In addition to a play-space on the site, a garden, for the school and community, could ground the project in place. The proposal for play at St. Louis offers an option for what could be, and not

an answer to what will, or must, be. A communal garden on the school grounds could provide an increased dialogue between the classes indoors and the play outdoors. A garden teaches the cycle of growth, the value of work and the importance of nutrition. Its impacts may affect the school's curriculum, and reinforce the connection between play and education.

A garden could add an additional programmatic layer to the play-space that could extend its reach into the community. A garden creates an event - the planting, tending and harvesting of crops. Members of the community with gardening knowledge could impart it on the students, deepening the relationship between school and community, site and play. St. Louis runs courses through the summer, which activates the space through the summer months, and ensures that a garden could have constant care by the student body.

James Carse describes gardening as a horizontal, infinite task due to its constant renewal and surprise. Gardening garners a place affinity amongst participants. The task of gardening endears the place to the player, though it changes over time. The garden is never the same; it evolves over time.<sup>6</sup>

A garden, a family, a classroom - any place of human gathering whatsoever - will offer no end of variations to be observed, each an arrow pointing toward yet more changes. But these observed changes are not theatrically amusing to genuine gardeners; they dramatically open themselves to a renewed future.

James Carse

*Finite and Infinite Games*

A garden roots play in the site. The Sonsbeek Pavilion in the front of the school offers a sketch of what play at St. Louis could

be. In this instance, it appears rigid and austere in order to allow the students and community to engage and play on their own terms. The pavilion does not dictate, it suggests. It becomes a site of active play and engaged players through its static, imposing form. The inclusion of a garden in the green space behind the school offers an idea of what can occur once play has been introduced. Play breeds play. The Sonsbeek Pavilion could give way to further instance of play on the site, inside and outside of the classroom. At best, it bridges the school's inside and outside to integrate play holistically into the lives of the students, their children and the surrounding community. St. Louis provides a possibility; a garden extends it.

Everyone played as a child. Children play instinctively. They play with the freedom that Carse described. By tapping into instincts, desires, and play-spaces that cater to the imagination, play may be inserted into the lives of Cambridge's citizens, specifically the students at St. Louis.

The impact of infinite play does not stop at the physical boundaries of the play-space. It extends into the greater lives of the players. These young women, and the other students attending St. Louis will benefit from the insertion of lightness into a dark existence.

This proposal, this sketch, does what van Eyck did in his playground designs and the Sonsbeek Pavilion; what Huizinga has written in his text on culture; what Carse has written through his text on play and his larger conversation of religion. They have all offered possibilities. The Sonsbeek at St. Louis is as benign as the concrete stepping stones in an Amsterdam playground. It is an artifact to be interpreted and refigured by the player. This proposal allows for active play: it must be moved around and

*Play*

through in order to be fully experienced and appreciated to its full capacity, and is open to interpretation. Yet, the underlying need for an intervention on the site remains.

The students at St. Louis need play; the single mothers and their children need play; the surrounding community and city needs play. The Sonsbeek Pavilion provides possibilities. It generates infinite play.

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*fig. 73.* Collage “unfolded” elevation of the Sonsbeek Pavilion at St. Louis.





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## E p i l o g u e

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I have played. In my own childhood, I was given many opportunities to play, in both organized and independent circumstances. My parents considered play a special, sacred activity, one to be respected and taken seriously. Play acted as an integral part of childhood; children play freely, easily and instinctively.

The house I grew up in backed onto a forested hill with a playground at the top. The forest was pure magic, with trilliums, logs and algae. The light was filtered and mysterious, creating the perfect atmosphere for children to explore and invent their own dream-worlds within. As children, my neighbours, siblings and I spent hours upon hours exploring the intricacies of the forest; creating shelters, waging war, or picking flowers. The playground at the hill's summit provided a meeting point for friends and parents to meet, but the real play occurred in the woods. The options it offered were more abundant and less obvious than the playground - our possibilities became endless, rather than bound by the swings and slide of the equipment.

Organized play, to counter the free, creative play of the forest, played a large part of my childhood. Dance classes, softball, one short season of rollerblade hockey and countless

hours of street hockey inserted finite games into my childhood and youth. The lessons learned - sportsmanship, teamwork, cooperation - have stuck with me. However, I missed the element of creativity, surprise and anticipation. They were provided, in some small part, through crafts, and through playing imaginary and role-playing games, individually or in play-groups. These types of imaginary games largely occurred in organized or impromptu groups, where rules shifted and the game evolved over time.

As play has impacted and shaped my life so heavily throughout my adolescence and young adulthood, I cannot imagine life without play's constant exploration and use of creativity. Van Eyck's playgrounds have left a permanent mark in my mind as the architectural manifestation of Carse's infinite game coupled with Huizinga's *Homo Ludens*. Man the player, infinitely at play.

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Play is universal. We all play. It does not discriminate against intellectual or physical disabilities. All children and adults hold the ability to play. In finite games, the player understands how he should act. For infinite play there is no correct or incorrect - the only limit that exists is the player's creativity.

Inserting the Sonsbeek pavilion into St. Louis does not answer to the problem of a school without play, or teenage mothers without play, or even their children in a day-care

without play. Instead, it provides an option of what could be, or what play could look like on the grounds of St. Louis. Play could permeate the space, extend itself into the lives of the students and the community. Similar to post-war Amsterdam, infinite play could become a civilizing function of Cambridge. Play, especially amongst adults, could be worthy of respect rather than ridicule.

The attention of finite games rests solely on the outcome; ultimately, winning and losing steals the focus of the players. Infinite play, on the other hand, focusses on the proliferation of play. The players of infinite games may experience the joy of play, rather than the seriousness of it. An infinite play-space can encourage play to permeate into the lives of the students and the surrounding community.

The spaces van Eyck carved out for play have enriched an entire city, but also an entire generation that grew up using these spaces. Inserting the Sonsbeek Pavilion into St. Louis would provide the single mothers, their children, the student body and the community with the same opportunity for play.

Infinite play does not conclude. Similarly, an infinite play-space does not conclude with a single design solution. The Sonsbeek Pavilion acts as a possible solution of an infinite play-space. It sits as a figurehead; it beckons to the single mothers at the school, their young children, the adult staff, neighbours and teachers to come and play. The space, like van Eyck's playgrounds, begs to be inhabited. It requires players to imbue it with joy and meaning. Without people running and laughing, it remains without life. That is the space of infinite play.

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*fig. 74.* Children climbing on metal hanging-bars and climbing structures in an Aldo van Eyck-designed Amsterdam playground.





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## Notes

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  4. Ibid., 11.
  5. Ibid., 70.
  6. Ibid., 23.
  7. Ibid., 8.
  8. Ibid., 13.
  9. Winnicott, 50.
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5. Ibid., 28.
6. Ibid., 23.
7. Ibid., 28-9.
8. Ibid., 19.
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10. Ibid., 30.
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12. Winnicott, *Playing and Reality*, 69.
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3. Winnicott, *Playing and Reality*, 94.

4. Carse, 11.

5. Winnicott, *Playing and Reality*, 100.

6. Jeanne S. Rubin, "The Froebel-Wright Kindergarten Connection: A New Perspective," 25.

7. Carse, *Finite and Infinite Games: A Vision of Life as Play and Possibility*, 139.

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8. Liane Lefaivre, "Space, Place and Play," 45.
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11. Francis Strauven, *Aldo van Eyck: The Shape of Relativity*, 152-4.
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19. Francis Strauven, "Neglected Pearls in the Fabric of the City," in *Aldo van Eyck: The Playgrounds and the City*, ed. Liane Lefaivre and Ingeborg De Roode (Rotterdam: NAI Publishers, 2002), 80.

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