Usurping Architecture:
Sculptural Resistance to the Built Environment

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DECLARATION

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.

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Abstract

Usurping Architecture is a study in three parts. Part One explores the historical and theoretical basis that has informed my body of work. In this section, I explore the perfection of the depiction of the three-dimensional structure on a two-dimensional plane. This is specifically related to architecture. I then examine the role of geometric abstraction, as developed on the two-dimensional format, in sculptural strategies and their insertion in the lived, everyday environment.

The role of geometric formalism is expanded on in the chapters on minimal art, where I explore the role of Gestalt psychology in creating a phenomenological response in the viewer. In the following chapters I indicate how the strategies employed by the minimal artists were used in subsequent decades as a response to the architectural environment.

Part Two deals with the methodology related to my art-making processes. The first chapter of this section informs the reader about the general use of concrete as a material. The second chapter explains how I use this material in the construction of cast concrete sculptures. It describes the technical aspects of the process in detail.

Part Three comprises a list of each work submitted for examination. The works are represented photographically and are accompanied by a short explanatory text.

Introduction

The basis of my research into the arena of sculpture and architecture is founded on construction. Using this word in relation to the building and construction industry, it is symptomatic of the growth in urban areas, gentrification and regeneration. The term also relates to demolition and destruction, as the often necessary precursor or inevitable successor to construction. My interest in the construction of buildings stems from my employment within that sector. Consequently the construction industry, together with the formal elements of modernist architecture and its social impact, has had an influence on the sculpture that I produce.

I do not propose to deal equally with architecture and sculpture. I recognise that both of these arts exist in the spatial sphere where they are in synchronicity or are at odds with one another. In its use of three-dimensional space, sculpture enters into the same kind of spatial practice as architecture. This allows the creation of a dialogue between art and architecture that transgresses the aesthetically pleasing coexistence of the two. I look at the creation of conflict and dialogue as it is highlighted through critical spatial practice. As an artist, my focus thus rests primarily on the role that art plays in this relationship.

In *Art and Architecture* Jane Rendell explores the two-way relationships between art and architecture. Rendell uses the term 'critical spatial practice' as a basis for examining artistic and architectural practice that is both critical and spatial. In architecture these practices are utilised by conceptual design and urban intervention. Within art, Rendell looks at site-specific and public art, as well as contextual practices drawn up around discussions regarding the role of the city (Rendell 2006).

It is not my desire to examine all the strategies employed by artists interested in working with or commenting upon, the urban environment. While site-specific art has informed my own practice, it does not warrant extensive discussion here. Rather, my focus falls on site-specific artworks operating in confrontation with their urban surroundings. My discussion of public art is similarly limited to artists whose works have informed my own work, namely the utopian modernist movements as well as the post-minimalist artists. Lastly, my discussion of architecture is limited to the means in which artists have countered the dominance of architecture in general, and modernist architecture in particular.

An investigation into spatial practice that criticises or comments on the relationship between sculpture and architecture has to acknowledge the existence of a tension between the two. This alludes to the existence of dialogical relationships, and opens up debates on issues such as binary opposites, hierarchies and power struggles. To claim the existence of an aggressor, victim or oppressor in this relationship might be excessive. However, there are examples of artists who critique and appropriate, not only architectonic concepts and designs, but physical constructions as well. Resistance to aspects of the built environment by artists denotes dissatisfaction with the impact that architecture has

had on the urban environment.

This study focuses on artists who provoke a debate about the built environment. I place particular emphasis on sculptural strategies of resistance towards precepts of modernist architecture within this environment. I must note here that my aim is not an attack on architecture itself. Recent decades have seen architects develop the same critical spatial practice that many artists have employed. These practices deal with their misgivings about the dominant architectural tenets their education was based on. Although more bound to social and economic pressures, the architect is well placed to deal directly with the functional and cultural role of architecture. The type of architecture opposed by some architects is the very same that some artists are attempting to liberate, namely the universalising tendencies of standardisation and seriality, loss of regional identities, highlighting of class divisions and accentuation of power relationships. Added to these are the binary opposites prevalent in large cities, with entropy and decay on the one hand, and gentrification and development on the other. The South African example, while in many ways unique, serves as an example of what has already occurred in many other large cities around the world.

Early modernist understanding of spatial practices required the development and reproduction of ideas on the two-dimensional format. The genealogy of art and architecture can be traced to the depiction of architecture in painting. Chapter One builds on the pioneers of perspective studies during the Proto-Renaissance. In the quest for 'truthful' representations, architectural depictions were utilised to draw the viewer into the picture frame, and present them with an 'objective' reality. The use of perspective and architecture aided the viewer in 'experiencing' a painting. This is an early link to later strategies employed by sculptors, such as Gestalt[1], where the viewer is made aware of a wider array of phenomena than is simply 'seen'.

Art based on the precision of geometry evolved during the early twentieth century to embrace non-relational abstraction in the search for supreme forms. The grid format, which aided painters in accurate perspective studies, was transferred onto the two-dimensional plane. The utopian artists attempted to create forms with universal relevance by formatting the grid around geometric abstraction. This allowed for the simultaneous and equal integration of these supreme forms into art and architecture. While the International Style in Architecture[2] spread and mutated into modernist architecture, artists attempted to take geometric abstraction to sculpture. Until the 1960s, sculpture had remained predominantly figurative. Some exceptions grew out of the idealistic movements of the twentieth century; Russian Constructivism, the Bauhaus School and De Stijl. Chapter Two examines aspects of these movements through a discussion of artists such as Oskar Schlemmer, El Lissitzky, and Georges Vantongerloo.

Within a discourse of spatial practice that draws on

1 Gestalt psychology is a theory of the mind and brain. When used as psychotherapy it focuses on the individual's experience in a present moment, the relationship between patient and therapist, and the social and environmental contexts in which these experiences take place. It focuses on the self-regulating adjustments an individual may make as a result of the overall situation. For the purpose of this study, I refer to Gestalt as the form-forming capabilities of our senses, or the inclusion of all environmental factors in aid of perceiving the 'whole from'. I differ from the psychoanalytical function of Gestalt and focus rather on its aid in experiencing visual art. (Collins English Dictionary).

2 The International Style became the dominant architectural tradition in the years preceding the Second World War. Crucial to its conception and growth were the architects who taught at the Bauhaus in Germany, such as Walter Gropius, Mies van der Rohe and Adolf Loos. Together with the highly influential Le Corbusier, they advocated the use of clean lines and modular utilitarian structures based or human ergonomic studies. The dominant tenet was that 'form follows function'. Their grand urban planning called for repetitive living units to be organised along single monumental compositions.

both art and architecture, the human body plays the role of a link between viewer and object. Chapter Three traces the genealogy of experience and phenomenology. Architecture subjects viewers to constant interaction; floors have to be crossed, stairs ascended, and walls brushed past. Art has to replicate or enter into the same kind of spaces to achieve a similar level of interaction. Minimalist artists like Donald Judd and Robert Morris first used the formalist model of modernism to intentionally disrupt the autonomous function of visual art. They broke the relationship between the viewer and the object through forcing the viewer to become physically aware of their experience of the work. The works were strengthened by using the prevailing aesthetic conventions of late modernism to negate the role of sculpture as an autonomous practice within the gallery. Chapter Three concludes by relating the pre-literal work of Anne Truitt to my own. Truitt's sculptures serve as a metonymic link between the object, the perceiving subject, and the environment.

Chapter Four discusses sculpture that reacts to architecture. This is firstly sculpture in direct dialogue with its architectural surrounds, such as Serra's *Tilted Arc*, or Whiteread's *House*. Here I enter into a discussion of the architectural interventions of Gordon Matta-Clarke. This architect-turned-artist worked through a series of interventions within the urban and suburban landscape in such a way as to physically deconstruct existing buildings. By creating fissures and incisions into buildings, he broke barriers between private and public, seen and unseen. His forceful interventions illustrate a violent desire to affect change within urban margins. Matta-Clark's work comments on urban and suburban decay and appropriation, property development and reclamation of denigrated urban spaces.

Given a harmonious relationship between art and architecture, they can serve each other. The urban arena is humanised through the use of sculpture as embellishment or focal points for buildings. In the same way architecture serves the display of art. This is achieved by filling the empty spaces created by the architectural designs with sculpture, where architecture is used specifically for the improvement of the display of art. In such contexts the two coexist, although it often occurs within a situation where one serves the primary needs of another. One can also consider the argument that architecture is also 'sculptural', albeit functionally so. Some might argue that once sculpture takes on a function such as shelter, it ceases to be sculpture. This argument is fiercely advanced by Richard Serra, who considers all art to be 'useless' and thus 'functionless'. Others might argue that by rendering a building uninhabitable, as Rachel Whiteread succeeded in doing with *House*, the function of the building is removed, turning it into sculpture. The arguments surrounding the alchemy of buildings into sculptures are expanded upon in my discussion of post-minimalism in Chapter Four.

The second part of this dissertation is focused on the use of concrete as a material. My body of work has been executed primarily in this medium. Part Two thus allows for a contextual look at concrete, as used in the construction of the built environment. Technical aspects regarding my production processes are explained here. This includes mould-making and casting processes, and touches upon my preliminary drawings for the sculptures. The third and final part discusses individual works in detail.

Part One

Chapter One: Construction of the Ideal
1. The Urbino Perspectives

Figure 1: *Città ideale*, mid-15th century. Panel painting, 59.7 x 200.6 cm.

Produced in the mid-fifteenth century, *Ideal City* or *Città ideale* is exhibited in the National Gallery of the Marches, Urbino (Figure 1). This oblong panel uses a single vanishing point on the central axis of the painting, clearly indicating recession in space. The perfectly ordered, rectangular houses face the circular building in the centre expressing classical order and symmetry. *Città ideale* has been classified as one of three panels known as the 'Urbino Perspectives'. The other panels hang in Berlin and Baltimore, and are both called *Architectural Perspective*. It is not known whether all three of these panels were produced in Urbino. It has also been contested whether they were produced by the same artist or even in the same studio[3]. The dimensions of all three panels differ, as does the architectural landscape they depict. The grouping of the panels under the name 'Urbino' has less to do with the geographical location of their origin than the use of perspective. What defines the 'Urbino Perspectives' is the greater emphasis given to architecture over pictorial form. The architecture serves to support the composition, where the artists have succeeded in attaining perfect recession of space onto a central plan, which corresponds to the idealised format of the surrounding buildings.

The use of accurate perspective to lend the painted image greater credence emerged during the Proto-Renaissance. Its origin is traced to around 1413 with the architect Brunellesci's first perspective demonstrations on a series of panels. These panels, now lost, reportedly astonished all who saw them. They illustrated the representation of the field of view of a single viewer through using a receding three-dimensional grid. The Latin word *perspective* is a translation of the Greek *optike*. This is a verb meaning not only 'to see', but also 'how we see', and 'how things are seen. The word perspective implies singularity of viewpoint, an individual way of looking at things. The early modernist use of one-point perspective was aimed at depicting accurate or 'truthful' representation of receding space. One can thus consider perspective as a subjective tool, which is supported by empirical data to appear objective.

In *The origin of perspective*, Hubert Damisch claims that perspective links the ideal object of geometry, 'one liberated from all reference to an empirical subjectivity', with art (1994:76). The use of perspective as an 'exact' science, grounded in the empirical validation of geometry

3 Most publications attribute *Città ideale* to Piero della Francesca, or his studio. In addition, some older publications and museums claimed that both the Berlin and Baltimore panels were produced by Piero della Francesca.

Figure 1: Piero della Francesca, *The flagellation of Christ*, circa 1458-60. Tempera, 58.4 x 81.5cm.

and a vanishing point, implies truthful representation. The result of perspective within Renaissance studios was based on the legitimacy of geometry in the perfection and normalisation of a three dimensional image into the two dimensional plane. *Città ideale* depicts an ideal city, and the 'perfect' proportions of the neo-classical buildings are bolstered by the optical effect created by of the accurate use of perspective.

Brunellechi's demonstration was influential to those who witnessed it[4]. Renaissance painters applied this geometric optics to their painting, using what was then known as 'painter's perspective' or 'artificial perspective' (Summers 2003:517). *Città ideale* is often attributed to Piero della Francesca, whose *Flagellation of Christ* combines precise architectural perspectives with narration (Figure 2). All architectural ratios are accurate and based on a single vanishing point. The figures however are not to scale and are an example of painter's perspective at work. According to the grid laid out by the floor tiles, the figures in the background should be substantially smaller in proportion to those in the foreground.

In *Città ideale*, the lack of narration allows for the possibility that it was the product of an architectural studio, or produced as a scene painting for theatre. Architects or artists of the time produced works like the ideal city, artesian adaptations of theatre painting showing the 'idea, or appearance, of a building to be built' (Summers 2003:513). This 'idea' or 'appearance' of a larger design relates to my own practice. I construct architectonic 'samplers'. These samplers allude to other recognisable shapes. This allows the viewer to draw comparisons based on their experience of the shapes they recognise.

Italian one-point perspective implies that the same underlying conditions would exist where ever we looked. But this is dependent on whether the angle of vision is in proper alignment with a three-dimensional grid. David Summers calls this grid a 'co-ordinate matrix', in relation to which he uses the term *metaoptical*. The implication of a metaoptical grid supported by geometry, measure and ratio, is objective perception. One-point perspective denies the subjective, individual viewpoint of things by allowing only one empirically

4 Brunelleschi is credited for restoring the classical architectural order by allowing architects to work as the ancients had, and thus as the founder of Neoclassical architecture (Summers 2003:513). This included the use of appropriate proportions and 'pleasing or canonical relations of the measures or ratios of buildings' (Summers 2003:513). The use of anthropometric studies by the ancients meant that buildings were based on the ratios of the human body. Modern architecture sought to emulate that, although this was often on a reduced scale.

demonstrated viewpoint (2003:558-9).

The placement of the viewer within the grid-like matrix implies that they will be able to experience 'truth', and hence an objective angle on the subject or object. However, this can be used to instil subjectivity in the viewer by presenting perspective from one side only. The subject's experience is based on what they are presented with in their field of vision. The effect of the object or painting on the viewer, as reported in relation to the Brunelleschi demonstrations or early viewers of *Città ideale*, is for them to have a sensory experience[5].

What defines *Città ideale* (and the other *Urbino Perspectives*) in contrast to other contemporary works steeped in perspective studies is that it tells no fable, expresses no history and leaves nothing to be narrated. Hubert Damisch contends that this precludes it from a strict definition as painting, and provides justification for a definition of this work as 'abstract', due to the essential decorative purpose. But he refers to its pictorial mechanisms as seeming to have 'been conceived precisely to lure anyone stopping in front of it into its game' (1994:169). This implies that the result at the time would have been for the viewer to have a phenomenological experience, based on the visual array presented by the painter.

What is of interest to this study is one of the explanations presented for the production of *Città ideale*, which was that it was produced to function as an idea or appearance of buildings. It relates to my sculptures, which function at times as architectural samplers, depicting a part or a segment of a building. The other reason *Città ideale* is relevant here is its name and subject matter. It depicts an ideal city (some publications refer to the work as *View of an Ideal City*), and it is the perversions of modernist architectural ideals that some of the artists I discuss take issue with. The subject matter of the panel, namely the depiction of what an ideal or perfect city should look like, is reinforced by the order and symmetry of the classical architecture. The use of this panel as a depiction of a utopian living environment is an early indicator of the search for universal purity that characterised the early twentieth century.

The Urbino Perspectives serve as examples of the influence of architecture on art. The reason that painting was used for this emulation of architecture was due to the fact that sculpture was not as advanced as painting. The format of sculpture had remained vertical rather than horizontal, and the subject matter figurative. The early twentieth century saw non-relational as well as geometric abstraction implemented by sculptors as well as painters. Through reduction and loss of the figure-ground hierarchy, sculpture could enter into dialogue with architecture, as both operated in three-dimensional space. The phenomenological technique applied by the creator of *Città ideale* came into use by sculptors, who used it in their reaction to the subservient role of sculpture to architecture.

5 The word 'subject' is from the Latin *subicio*. Definitions of this can be 'to strike from below' or 'to place under'. Summers used subject as a synonym for the self, but defines self as being a 'medium of response to, of actually being *subject to*, the phenomenal actuality of a human life'. He delineates only the *embodied* self capable as turning sensation into experience, and uses an analogy to describe the subject as one that 'undergoes the forces of the external world as experience' (2003:559).

Chapter Two: Universalising art and the sculptural mimicry of architecture.

The utopian movements of the early Twentieth Century were founded upon a search for essential truths with universal relevance. This led to artistic movements searching for idealised forms and their insertion into all aspects of the environment. Centres of learning such as the Bauhaus in Germany and VKhUTEMAS in Russia advocated a synthesis of the arts, but with a strong emphasis on craft. De Stijl artists in the Netherlands also adopted the use of idealised forms with universal relevance.

In a discourse of art and architecture these movements are relevant. Firstly, the quest for synthesis between the arts led to the integration of art and architecture. On the one hand, this led to the insertion of sculpture into the architectural environment in a subservient role. This was caused by sculpture adopting the role of embellishments for buildings or to accentuate focal points of urban designs.

On the other hand architecture took up a sculptural role through the adoption of sculptural strategies in urban design. For instance, the entry of asymmetrical compositions and the avoidance of decoration in modernist architecture is evident of the influence of art on architecture.

2.1. Suprematism and Russian Constructivism

Crucial to the growth of Constructivism in Russia was VKhUTEMAS, the Higher State Artistic Technical Workshops. Painting, design, architecture, photography and crafts were all taught at the institute, with the intention of reconciling high art with a utilitarian purpose. In the search for balance in art between aesthetics and utility, a rift developed among the Constructivists. This division was led on the one side by the prominent Constructivists Alexandr Rodchenko and Vladimir Tatlin. This faction stressed the need for the creative process of art to have 'direct serviceableness' (Drutt 1999:10). Artists were encouraged to devote their energies purely to technological invention. The opposing faction, led by El Lissitzky and Kasimir Malevich, claimed that constructivist art could only be successful if 'its aesthetic program remained dominant to technological considerations' (Drutt 1999:10). While functionalism won dominance, Lissitzky continued to assert this claim in ensuing years and it is a power struggle quite evident within a contemporary art and architecture discourse. While many differences between art and architecture can be reconciled in spatial practice, art or sculpture need not have the functionality and serviceableness that architecture requires. But by those very attributes architecture is able to operate directly in a social sphere, without the attempts at reconciliation

Figure 3: El Lissitzky, *Proun* 1 A, Bridge I, 1919. Gouache. 8.5 x 15 cm.

and engagement with the community or the viewer that art can be compelled to.

Before his appointment at VKhUTEMAS, Lissitzky had aligned himself with Malevich and Suprematism. The name Suprematism is in reference to supreme forms, such as the square. It was believed that these forms were not visible in nature, and thus constructs developed solely as a result of human technological endeavours. At this time Lissitzky started on a body of work he labelled *Prouns* (Figure 3), meaning 'for a new art', after the group he and Malevich had started. Lissitzky's *Prouns* were architectural in character and he called them 'a station for changing from architecture to painting' (Honour & Fleming 2002:830).These works incorporated painting, design and architectural references, and consisted of abstract geometric forms executed in mixed media.

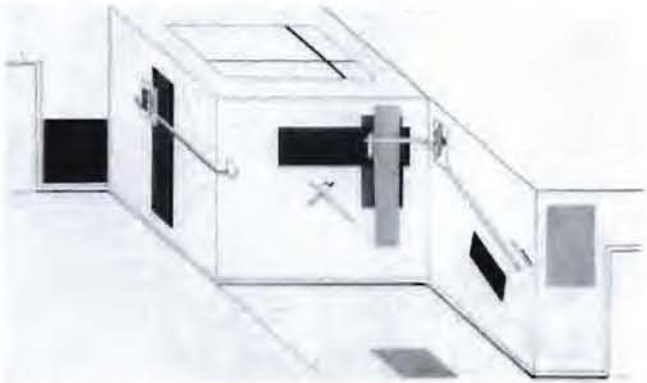


Figure 4: El Lissitzky, *Proun Room*. 1923. November Group's art exhibition, Grosse Berliner Kunstaustelling. Lithograph.

At the Grosse Berliner Kunstaustelling of 1922 Lissitzky used the opportunity to illustrate the purpose of the two dimensional *Proun* as a mapping of architectural space. He deployed his compositional thinking into real space in an installation dubbed the 'Proun Room' (Figure 4-5). The installation used an interlocking series of abstract forms, painted and in relief, expanding onto the walls and ceiling. The installation was in a room tightly packed with paintings, where Lissitzky attempted to show the importance of working in real space while thinking in abstractions.

For the the1926 Internationale Kunstausstelling in Dresden, Lissitzky was commissioned to design a room that would house works by Mondrian, Leger, Picabia and Moholy-Nagy, amongst others. The display used sliding panels, walls of various colours and textured surfaces. The works were hung at different levels, forcing viewers

Figure 5: El Lissitzky, Detail of the *Proun Room*, 1923. Grosse Berliner Kunstaustelling. Oil on canvas. 77 x 82 cm.

to change their stance when looking at the works. Through these strategies the architectural context became as much a part of the viewing experience as the objects on display. By placing abstract forms in space Lissitzky succeeded in creating a dynamic environment that enlivened, or added to, the artworks.

By the late 1920s Lissitzky was producing architecturally inspired work, forging a relationship between the abstract form and the inhabited environment. He achieved this through the insertion

Figure 6: Gustav Klutsis, *Dynamic city*, 1919. Gelatin silver print. 28.2 x 22.7 cm.

of real forms into an abstract composition. Another Russian, Gustav Klutsis, had already been producing works incorporating both abstract form and realistic representation in photo collages, such as *Dynamic City*, c1919 (Figure 6). This work composes photos of buildings, figures and angular forms within abstract shapes. It serves to blur the distinction between realistic representations of architectural elements with non-relational abstraction.

2.2. De Stijl

De Stijl developed in the Netherlands during the First World War, and was similar to Russian Constructivism and Suprematism in several ways. Its members also saw art as a tool for progress, and were spearheaded by a search for non-figurative, ideal forms with universal relevance. De Stijl also utilised the grid format, although the application of it was stricter than the endless spatial continuum favoured by the Suprematists. De Stijl exhibited greater reliance on the right angle as the basic principle of composition, and kept to white, black and grey and the three primary colours.

There are several factors which led to the development of De Stijl in the Netherlands. The outbreak of the war is perhaps the most prominent. Hans L.C. Jaffe describes this in part as an effect of the harmony and balance longed for by many Europeans. He further notes that the uniqueness of De Stijl was partly geographical, firstly due to isolation caused by the neutrality of the Netherlands. Secondly, the distinctively angular landscape of Holland, with its rectangular fields and straight roads bear resemblance to the strict formalism of De Stijl. Jaffe also notes that the 'artistic purism of De Stijl is synonymous with the tradition of Dutch Puritanism'. Their preference for abstraction can be related to the influence of 16th century Calvinism on the Dutch 'national character'. Calvin was a protestant preacher whose concept of divine purity called for

the removal of religious images from artwork as they detracted from the sanctity of God. Jaffe claims that the De Stijl artists were descendents of the early Calvinist 'iconoclasts', who through their 'banishment of every representation of nature' sought 'divine purity of the laws of creation'. Abstraction was seen as an affirmation of their faith in universal values. Search for universal truth, pure objectivity attainable only through the geometric abstraction was paramount to the ideals of De Stijl group. (Jaffe 1982:13).

For De Stijl artists the search for essential truths was fundamental. These truths were revealed through the use of only the most elemental means of primary colour, rectangular form and asymmetrical composition. But while pure colour and elemental form initially engendered De Stijl, in effect it became the subject matter. Like the VKhUTEMAS in Russia and the Bauhaus in Germany, it called for a synthesis of all the arts in the quest for universal synchronicity. The movement believed that where their ideas were implemented, harmonious relationships would be established between all aspects of the visual environment. This equilibrium was deemed attainable only through the application of De Stijl as the universal style.

The style differed only in respect of the delineations of the varying arts, namely painting, architecture and interior design, sculpture and furniture design. It is in the few examples of De Stijl sculpture that we can see the most direct link between sculpture and architecture, and observe examples where sculptors started emulating

Figure 7: Robert van't Hof, *Trappaal*, 1918.

formal aspects of the built environment. Whether this was mimicry or pure non-objective abstraction is not certain. What does seem relevant to me is the distinct similarity these sculptures hold with modernist architecture.

In 1918 the architect J.J.P. Oud argued that unlike painting, architecture has to compromise between pure artistic creativity and practicality. Art and architecture could thus not function as an 'art of pure relations'. But the distinction of art as two-dimensional and architecture as three-dimensional was not so large that there were not a variety of projects where the two were integrated. Through searching for a common means of expression between the arts, they relied initially on the de-emphasis and elimination of architectural mouldings. Thus the breakdown between the two arts was aided by the reduction of visual references which were seen as detractors of elemental form. (Oud 1918).

Robert van 't Hoff who was briefly aligned with the movement, produced *Stepped Column* (Figure 7). In the original Dutch the translation is *Trappaal*, a name denying a reading of it as a sculpture or an architectural

model[6]. Rather, it signifies it to be some kind of functional object. Its purpose is further confused by the absence of a base or pediment, generally held to be the signifier for a work of art.

One of the few sculptors of De Stijl was Georges Vantongerloo. In *Reflections 1* and *2* published in *De Stijl* between 1918 and 1919, Vantongerloo wrote extensively about the relationship between solid and void. He linked this to the space in which an object exists, which in turn reflects the 'spatial effect of the volume'. Vantongerloo expressed his opinion that sculpture is nothing more than the 'expression of the relationship between volume and emptiness...a matter between human mind and object' (Joosten 1981:65-66). Vantongerloo's work after returning to Brussels in 1919 often represented figures, but his use of rectilinear components took on the appearance of architectural structural forms.

One of Vantongerloo's better known works is *Construction of Volume Relations* (1921) (Figure 8). This mahogany sculpture exhibits interpenetration of volumes and voids. The asymmetry of design increases the architectural character of the work. To Vantogerloo's contemporaries it may have appeared more like non-relational abstraction and less like architecture. At the time of its construction however, it served as an examination of the precise spatial relations and angular constructions that architects were using. His work *Interrelation of Volumes* (1919) (Figure 9), also showed voids and obtrusions that, despite their resemblance

Figure 8: Georges Vontengerloo, *Construction of volume relations*, 1921. Mahogany.

Figure 9: Georges Vontengerloo, *Interrelation of volumes*, 1919.

to building blocks, are quite indicative of the style of architecture that rose to international dominance in the ensuing decades.

Both Robert van 't Hoff and Georges Vantongerloo were exposed to the designs of some of the pioneers of modernist architecture, most notably Frank Lloyd Wright. His designs had been published in Europe in 1910 and 1911. Wright was particularly admired by members of de Stijl group, and shared an interest in both classic

6 My reading of *Trappaal* is that it functions neither as specifically sculptural nor specifically architectural. When the work was reproduced in *De Stijl*, the accompanying caption written by Theo van Doesberg indicated that it was the 'spirit' between sculpture and architecture.

formalism and ambiguous space relationships (Arnason 1988:208). The degree to which Wright's designs influenced Van 't Hoff and Vantongerloo is unknown, although the influence of modernist architecture on their work is evident.

Figure 10: Walter Gropius, *Bauhaus*, Dessau, 1919-1925.

2.3. The Bauhaus Dogma, the International Style, and mass housing

In 1919 Oscar Schlemmer produced a series he called *Architectural Sculpture R*. These took the form of models of architectural sculptures. Schlemmer wanted his panels to increase in size in such a way as to become part of the architecture. Although Shlemmer's subject matter was the human figure, his design was for it to increase in the measure and scale of architecture. A three-dimensional figure would emerge from a plane of positive and negative shapes, alternating in projections and recessions in the façade of the front elevation of a building. Schlemmer wanted *Architectural Sculpture R* to inspire architecture and 'result' in a building. Of course, the result would have been for the artwork to be in subordination to the architectural context. In 1922 Sclemmer stated that he can consider building only if the 'ideal' and form could be derived from his paintings which 'anticipate it' (Eberle 1985:112-113). Schlemmer's project was an example of an artist who proactively attempted to influence architecture through his art. The influence of other artists on architecture was less proactive but significant nonetheless. The quest for an ideal in art during the early Twentieth Century was one of the largest influences on what would become known as the International Style in architecture, which in turn resulted in the theoretical basis of modernist architecture.

The International Style in architecture evolved initially from the concepts of J.J.P. Oud, Mies van der Rohe, Walter Gropius and Le Corbusier during the 1920s and early 1930s[7] . At the exhibition of advanced tendencies held at the Museum of Modern Art in 1932, the importance of structural steel and ferro-concrete was stressed as the defining feature that bound the style together[8]. The International Style was considered the first structural system to have been developed since Romanesque and Gothic architecture of the twelfth and thirteenth centuries (Arnason 1988:312).

The first principle of this new style of architecture was the loss of need for the load-bearing wall. The use of ferro-concrete allowed the construction of a skeletal structure covered with a skin of masonry, metal or glass. One could thus speak of an architecture of volume rather than mass. The other defining principle was the avoidance of decoration. This included the loss of high contrasts of colour. The reconstruction allowed by the removal of load-bearing walls meant that new spatial structures could utilise a free flow of interior space. The inexpensive use of the new style allowed standardised units to be used in urban planning and low cost housing.

The International Style exerted a strong influence on students at the Bauhaus, particularly under the tutelage of Walter Gropius. Gropius believed that no barriers should exist between structural arts and decorative arts. Initially the Bauhaus was greatly influenced by the English Arts and Crafts movement and the work of William Morris, unifying art with design. Once the Bauhaus had come into contact with De Stijl though, it adopted a more austere and purposeful manifesto. They moved in a direction of stark cubic simplicity and functionalism. The focus of the Bauhaus thus moved away from handicraft and relied more on the possibilities of mass machine manufacture.

Gropius learned the potential of working with ferro-concrete when he was working in the offices of Peter Behrens. When the Bauhaus moved to Dessau in 1925, Gropius took the possibilities of creating free-flowing interior space that he had learned under Behrens, and applied them in designs for the new premises (Figure 10). The building consisted of asymmetrical spatial arrangements with interpenetration of inside and outside space made possible by a skeleton structure of steel frames and reinforced concrete columns. In due course the Bauhaus became one of the paradigmatic buildings of the International Style.

Gropius left the Bauhaus in 1928 and Germany in 1934. During that time his work focused on low-cost and medium-cost housing. He was particularly interested in housing and city planning, and the social as well as aesthetic implications that architecture allowed (Arnason 1988:315). This interest in housing was shared by Le Corbusier, whose interest and knowledge of Cubism had an effect on his understanding of architectural space and structure[9]. Throughout his career Le Corbusier's primary focus was on housing and the home. He explored ways in which houses could

7 The International Style in architecture grew in prominence through two waves. The First Wave was brought about by the end of the First World War and the resulting inter-pollination of ideas and communication. The Second Wave is characterised by the growth of Nazi Germany and the outbreak of the Second World War. As a result many artists and architects fled to safer countries, particularly the United States.

8 H.H. Arnason maintains that communication between architects was re-established so quickly after the First World War, that there were no *national styles* to speak of. Rather, there existed centres of experimentation to which architects and artists converged from elsewhere, thus resulting in an *international* style (Arnason 1988:312).

9 Le Corbusier was the architectural pseudonym of Charles-Édouard Jeanneret. Le Corbusier was a highly effective exclaimer of his own architectural theories.

attain an interpenetration of inner and outer space through the minimal amount of structural elements. Le Corbusier followed closely on the principles which Gropius and Behrens had evolved in the construction of ferro-concrete housing and working units.

Le Corbusier famously defined a house as a 'machine for living'. This statement has subsequently been corrupted to validate the construction of low-cost housing that decreased, rather than increased the living quality experienced by its inhabitants. The tenets of the International Style evolved into what became known as modernist architecture. Le Corbusier was a prolific theorist, and although many of his projects were never seen to completion, his theories were greatly influential on architects in ensuing years. This was particularly evident in post-war years, when massive reconstruction was necessitated by the return of war veterans and the settlement of refugees.

Le Corbusier and his contemporaries were hailed for their theories regarding monolithic city planning. However, in assuming the standardised low-cost housing model, many of these ideals were corrupted by subsequent urban planners. Modernist architecture still retains a large degree of dominance today, with many of the buildings constructed reliant on modernist ideals. My interest lies in the destruction of such buildings. Here Pruitt Igoe Modernist housing in St. Louis makes an interesting case study. The structure, designed in 1958 by the architect Yamasaki, was destroyed in 1972 after its inhabitants refused to live there any more (Curl 2000:516). Some claim this to be the event signalling the entry of postmodern architecture. Strategies used by artists similarly disillusioned by modernist architecture are delved into in Chapter Four.

Chapter Three: The negation of modernism in the sixties: Minimal Art.

By the 1950s the figure painters and Abstract Expressionists had established themselves as the American avant-garde. During the latter part of the decade the dominance of figurative abstraction in painting was challenged by a return to geometric abstraction. The paintings of Kenneth Noland, Ellsworth Kelly and Frank Stella were more influential to the sculptors of the ensuing years than many of the artists working with sculpture. Many of the artists who were later called the 'minimalists[10] had worked primarily in painting.

Some of the practices employed by the minimal artists are described as non-relational, non-hierarchical, reductive, serial, literal, unitary and specific, and gave rise to names such as Cool Art , Structurist Art, and Literalist Art. Sol LeWitt claimed that 'no one defined' minimalism. Thus placing it within strict boundaries becomes difficult. Minimalism still remains a 'shifting signifier whose meanings altered depending on the moment or context of its use' (Meyer 2001:3).

Because of the use of ideal geometric abstraction, minimal art was seen as a consummation of the formalist model of modernism. It appeared to embrace the architectural aesthetic of clean lines and unitary serial structures. It can be argued that minimal art was the last of the modernist styles. However, it also initiated a postmodern critique of modernism. This was largely due to Michael Fried's critique of minimal art in Art and Objecthood. In his 1967 article, he attacks minimal art as a threat to formalist modernism. Minimal art not only 'completed' the elitism associated with modern aesthetics, it also broke down this elitism. This was accomplished by negating the autonomy of sculpture by denying the limitations of, and distinctions between the arts.

The strategies of the minimal sculptors of the sixties are relevant to a discourse of art and architecture for several reasons. The reductive nature of much of the work allowed the spectator to consider how the objects function in space. This gave the work a relationship with its environment, an environment in which architectural space was shared by the viewer and object. The materials used no longer defined the aesthetic quality of the works in the same way as traditional sculpture did, and the objects were constructed as architecture would be. The scale of the work was along human proportions, the same on which architectural ratios are established. The works were increasingly floor-bound, linking them more directly with their architectural surroundings. Also, in respect of exhibition venues or galleries, the works often demanded neutrality in architectural mouldings and styles. As a result the placement of the works became increasingly important.

10 I use the term 'minimal art' to describe the work produced during the sixties by the likes of Morris, Judd, LeWitt, Flavin and Truitt. Minimalism became the collective term for the artists, although it was in fact not a cohesive movement. Some artists felt uncomfortable with their association with minimalism, while others refused to agree on anything theoretical. Consequently, I use the term in the lower case.

3.1. Rejection of the Base.

The impact of Abstract Expressionism on minimal sculpture of the 1960s not only resulted in a reaction against artistic subjectivity and figuration, but also positively influenced formal aspects of sculpture. The disappearance of the frame of the painting a decade before the removal of the sculptural base underscores this point. That a sculpture required a base to function as an artwork was largely taken as given before the 1960s, at which stage a large-scale rejection of the pedestal had begun to take hold.

The base physically elevates the work from the ground, at the same time isolating and severing it from its location. By relying on a base, sculpture creates its own space and can be seen as distanced from the world of the spectator. The separation of the sculpture from the viewer also results in a 'metaphysical disjunction', signalling an illusionistic quality and defends the idealism of the work. It serves to illuminate the work as special and unique. A pedestal defines the work as having a bottom and a top, and can even delineate the front from the back. While signifying the uniqueness of the work it also underlines the unreal quality of a statue, and ultimately defines its mimetic nature. The base also serves as a signifier for a work of art, so the ignorant viewer may not mistake its purpose.

Sculptures that stand on the floor allow a direct and immediate experience of the work. Frances Colpitt maintains that confrontation takes place between the

Figure 11: Donald Judd, *Untitled*, 1962/1987. Douglas Fir plywood, painted.

viewer and object on 'equal terms' (1990:35). I hold this to be especially relevant in the works of the minimal artists, particularly Judd and Morris. In a work of 1962, Judd created a relief with the intention of hanging it on the wall. Instead he decided to leave it on the floor. Once he had developed the box format (Figure 11), there was no reason for a base. Such sculptures were not rooted on to the floor, rising dynamically upward. Rather, they were placed on the floor where they sat inertly.

Some of the other minimalists did rely on walls and ceilings for support. Morris' early works place specific emphasis on gravity and support. Flavin, meanwhile, used walls to hang his 'light sticks'. The artist whose work is most inseparable from the floor is Carl André. His works are the very definition of 'floor bound' and sit there placidly and unobtrusively. Architectural space is relevant here, but it is the objects themselves that play the greatest role in engaging the spectator. This was primarily aided by the rejection of the base. Colpitt defines it as having been 'made on the basis of formal and theoretical notions about the ontological status of the work of art' (1990:35). Broadly speaking Ontology is the study of reality, and the nature of being. It is relevant to the object and viewer relationship as a means of defining the self through the presence of the object. Similarly the body reacts to the environment, and the viewer questions his or her reaction to the work by considering external features.

3.2. Materiality:

The early twentieth century saw dynamic use of concrete abstraction[11] in painting. This did not expand into sculpture, as its function in real space would inherently give it object-like appearance. In the same way the use of industrial materials was avoided to aid the autonomy of sculpture in three-dimensional space. Colpitt claims that 'the modernist concept of "truth to material" of a sculpture is found in its material, that the sculptor aids in its birth through an awareness and consideration of the potentiality of the material, and that the form and the material coincide' (1990:8). The danger for modernist sculptors in using non-relational abstraction was that the art objects produced would be similar to everyday, utilitarian objects. As a result this strategy was avoided. In using materials favoured by the mass-production industry, as well as commissioning tradesmen in commercial workshops to create their works, the minimal artists negated the influence of the choice of material over the work. By freeing themselves from the actual construction of the works they did not have to master the skills required for such precise constructions. The removal of the hand of the artist form the work also reduced the subjectivity of the artist. The viewer or spectator could now play a greater role in the completion of the artwork, by engaging with the works on equal terms.

Further, the relationship struck up between the viewer and the object of perception became possible through the reduction of compositional material. Confrontation extended beyond the traditional passive aesthetic apprehension to confrontational awareness evoked through Gestalt. The entirety of the space in which the confrontation takes place must be taken into consideration by the viewer, by responding to features not exhibited, such as presence, the scale of the works and its architectural implications.

11 Concrete abstraction means not abstracted from something.

3.3: The spectator's experience: Theatricality and new anthropomorphism.

Michael Fried's *Art and Objecthood* is one of the most influential analyses of minimalism. Fried negatively assessed the works of Morris and Judd as 'theatrical' because of what he called their obsession with the spectator (1967). Fried's criticism of the theatricality of minimalism is founded upon the Greenbergian distinction between the arts[12]. Their view was that art forms (e.g. painting, poetry or architecture) should be independent from each other.

Theatre's position in between the arts denies each art form its autonomy. Fried argued that the minimalist aims were 'antithetical' to art, as it refused to respect the boundary between sculpture and painting. He calls it theatrical because 'it is concerned with the actual circumstances in which the beholder encounters it'. Parallels also exist between minimalism and theatre because of the reliance on a viewer[13]. In fact, Fried describes minimalist objects as having 'a kind of stage presence' such as 'the silent presence of another person' (1967:15-19). This description alludes to a kind of anthropomorphism, which is existent in sculpture that is devoid of any formal human figure qualities.

Fried used theatricality to discredit minimalism, but in doing so unintentionally affirmed the minimal artist's success in visually engaging the spectator through the creation of a situation (Reiss 1999). When talking about the work of Morris, Foster claims he sought to reconcile the old modernist autonomy with his new minimalist literalism by means of Gestalt[14] , thereby shifting the focus from the object, to its perception. He thus creates a situation (2002:54). The situations are by no means clearly defined, and are contingent upon the individual viewer. The meaning of the work thus varies from person to person. In that way, time is disrupted by adding to the works an element of temporality. Morris states that this disruption of time and physical passage means that total space is altered by the presence of objects (Morris 1966).

Fried called for the sublime 'instantaneousness of modernist work' which at any moment can stand on its own, faulting the 'endlessness' of minimal art. In adding the concept of temporality to his critique, Fried explains that the presence of the viewer is required to complete the artwork. And as the objects create a theatrical situation only in the presence and with the awareness of the audience, they only 'work' at specific times. 'Timelessness' also comes from the fact that the circumspection of the work literally took time. (1967:15-19).

In reaction to Fried's critique Morris wrote, 'Only one aspect of the work is immediate: the apprehension of the Gestalt. The experience of the work necessarily exists in time' (Morris 1966:23). By this he meant that modernist geometric simplicity would seem to be comprehended instantly, as one recognised for instance, a square or a rectangle. In minimal sculpture the shapes are similarly instantly recognised, but the spectator takes time to

12 *In Towards a newer Laocoon* (1940), Clement Greenberg explained why the various art forms (architecture, sculpture, painting etc.) should retain an autonomy from each other. Defending the ideality of artworks, he claimed that 'purity in art consists in the...willing acceptance of the limitations of the medium of the specific art' (1940:23-38).

13 This 'viewer' is also referred to as a 'spectator' or as part of an 'audience'. Fried, particularly, preferred to use the term 'audience' as it strengthened his argument that minimal art was 'theatrical'.

14 Morris wrote extensively on phenomenology and Gestalt psychology in *Notes on Sculpture*. He claims that the literal object created an awareness of itself as a physical entity. It also made the viewer aware of themselves as a perceiving or spectating subject. (Morris 1966).

comprehend the work.

To a certain degree instantaneousness does present itself through the use of ideal forms that are recognisable from geometry. Morris writes at length about the Gestalt of the forms, which are known before the viewer enters the gallery. Many of the minimal artists were familiar with the writings of Maurice Merleau-Ponty, as they had been translated into English in the early sixties. In *Phenomenology of Perception* Merleau-Ponty states that phenomenology investigates the difference between what something is known to be, and the way it appears. He refers to the way a cube is seen. When one looks at a cube, one can never see all the sides; there is always a part hidden from view. Yet we know exactly what a cube looks like, and are able to see it from 'everywhere and nowhere' (1962).

Foster claims that minimalism announces 'a new interest in the body', but not in the form of an 'anthropomorphic image' (2002:43), but rather through a phenomenological concern. The minimal artists reacted to the illusionism of the modern figure. Traditional sculpture relies on anthropomorphism to strike a bond between the viewer and the work. Through mimesis of the human figure a bond is struck on some kind of emotional or psychological level. Unlike earlier sculpture that, however abstract, still retained traces of the human form through convex forms or bulges, minimalist sculpture had no formal human allusions[15]. Sculpture is more likely to resemble objects, and thus sculptors, unlike abstract painters, relied heavily on the

Figure 12: Donald Judd. *Untitled* ("Record Cabinet"),1963/69. Cadmium red light oil on wood.

human figure. The response to many of Judd's works was their likeness to objects, and since the human figure could not be used for comparison, viewers looked for reference in everyday objects. For instance, *Untitled* (Figure 12) has also become known as 'Record Cabinet'. The red box-like structure is dissected by a cylindrical negative space, exposing wedges or slots in the interior. The resemblance to a cabinet utilised for storing records led to it being renamed as such by viewers.

The issue of presence in these non-anthropomorphic forms is most puzzling, as there are no formal clues. Presence is felt and responded to rather than recognised. William Rubin claims it 'refers to the way in which the work of art imposes itself on the perception and experience of the viewer...the ability of a configuration

15 Constantin Brancusi and Henri Moore's reductive sculptures are often listed as precursors to minimalist art. Moore's reliance on the human figure precludes his work from such a reading. Brancusi's sculptures are more closely linked to minimal art, although they can still be read as figurative.

to command its own space' (1970:37). The Objecthood of the work is that which gives it its presence, and evokes a bodily response in the spectator. Because the objects are real rather than illusionary it evokes a non-specific response.

As opposed to earlier painting were the viewer gets 'sucked into' the work, minimal sculpture made the spectator acutely aware, even self-conscious. Viewers compare themselves to the work on an equal footing. This is a result of what is referred to as the external orientation of minimal art. It is an outer-directedness of the objects which is seen through the literal emptiness of the works (their lack of content). The viewer is forced to locate the meaning of the work from experiencing it rather than from simply 'seeing' it.

Lucy Lippard attacked Fried's critique of minimal art, by stating that it rested on a modernist distinction of sculpture as a 'pictorial' tradition. Lippard claimed that Fried's favourite type of art (painting), arisen from a modernist tradition, was threatened by the theatricality of minimalist or conceptual sculpture. She noted that painting is not threatened by the 'encroachment of the "real spaces" and "real life" into art, except if one still asserts the "continuing *domination* of painting's tradition"' (1972:20). Many of the artists producing minimal art did so through sculpture, not having used this medium in the past. One can draw the conclusion that sculpture was the medium best suited to serve the flow of art into real space. This was due to the environmental nature of such sculpture.

3.4. Architecture and the environment: issues of scale and presence.

More than paintings, the sculptures of various minimal artists often resembled architecture. Morris's sculptures resemble doorways or columns, but have nothing to do with them. Judd's work was described as taking inspiration from the technical aspects of building, and thus can be read as reference to architectural construction. While the artists denied this link, it can be found in the works of Tony Smith and Sol LeWitt. Smith worked as a practising architect, while LeWitt, when interviewed by Frances Colpitt, claimed that the kind of structures architects were busy with had more of an influence on him than sculpture did (1990:81). Another link with some of the sculpture of the time is that it was constructed, as opposed to the more classical sculptural techniques of carving and modelling.

While Morris relied on architecture for the inspiration in devising his forms, he also relied on architectural function when installing his work. It was constructed to fit into a corner or lean against a wall. The fact that you can step through the work made it undeniably architectural, a feature evident in Morris's plywood show of 1965 (Figure 13). Architectural references are most notably taken up by artists whose work enveloped the viewer. By creating a new space, the spectators could be made more acutely aware of the space surrounding themselves and the work. Art even became a physical

obstacle, particularly in the work of Flavin and Morris. Morris's interest in the shared space between the viewer and the object relied on the presence of the work within an architectural space.

Minimal art is also described as 'environmental'. This is because the works 'activate' the spaces around them, and not only the space physically occupied by the sculptures. This space is the same as that inhabited by the viewer.

While many of the minimalists (most notably Morris) denied associations with this term, environment played a role. What they opposed was the creation of an actual environment as George Segal or Claes Oldenburg had. For them the work did not go to the point of being an environment. Rather, it functioned between an object, the space surrounding the object, and the environment in which the object is placed (Morris 1966).

While Flavin was particularly sensitive to being labelled 'environmental', his work is acutely concerned with the phenomenology of the gallery rooms. He wrote that he disliked the term being associated with his work as it seemed to imply 'living conditions and perhaps an invitation to comfortable residence. Such usage would deny a sense of direct and difficult visual artifice' (Flavin 1967:23).

But despite the minimal artists' distaste for the term, the confrontational nature of the works transcended the space of the work themselves, and in entering the arena of the spectator, became undeniably environmental. Many of the works depend to an extent

Figure 13: Robert Morris, installation view, 1965. One-person show, Green Gallery, New York.

on the environment, such as Flavin's tubes positioned in the corner of a room, or blocking a passageway. Judd's use of the floor and walls in a room also incorporate the room as part of the works. The importance of the placement of the work by the artists adds to the particular architectonic quality of the work. The reductive nature of the works mean that aspects of the exhibition space, such as floors, ceilings and lighting take on an integral role in the exhibition. The environmental aspect of the minimalist works have led directly to what became known as site-specific art, in the same way as the theatricality of the works developed into situational art. The minimal artists generally did not create work for specific environments, although they may work better in specific spaces.

3.5. Metonymy in the pre-literal works of Anne Truitt.

While the theoretical and formal basis of minimal art influences my work, what is of particular interest to me is the associations that singular minimalist forms evoke of a larger entity. Some of the work produced by Anne Truitt serves to illustrate the metonymic function of sculpture[16]. Truitt used easily identifiable forms which allowed for the interpretation of the work as representative of a greater whole[17].

Besides being the only female artist associated with the minimal artists of the sixties, her work was also praised by Greenberg for its 'optical aesthetic', something Judd and Morris opposed (Meyer 2001:63). Like many of the minimal artists, the significance of the painters Stella, Newman, Noland and Kelly's work was hugely influential on Truitt's artworks. What makes her work distinct from the practice of her contemporaries was that she took colour to her sculpture, unlike the monochromatic greys and whites of Morris. *Southern Elegy* (Figure 14) was painted a stark black, and resembles a tombstone. The sketches she produced during that time suggest portals, colonnades, columns and trellises, as well as geographical depictions. James Meyer notes that these works depict the built environments of the seventeenth and eighteenth centuries, the environment of Truitt's childhood town. He describes the works as not based on a particular motif, that is, not something drawn on site. Rather than 'empirical perception' they

Figure 14: Anne Truitt, *Southern Elegy*, 1961-62. Painted wood.

16 I refer only to Truitt's early sculptures. Truitt abandoned the specific content seen as tombstones and fences and subsequently only used form and colour to convey the content, using a stricter abstract format. She adopted a serial method and worked in polychromatic shades of colour.

17 In linguistics, metonymy refers to 'the use of a single characteristic to identify a more complex entity' (http//en.wikipedia.org/).

resemble remembered shapes constructed from memory such as the abstracted profile of a house, gravestones or fences (Meyer 2001:68).

In *First*, Truitt depicts a real fence, instead of merely referencing it (Figure 15). It is constructed out of painted wood, and retains the exact triangular-topped shape of a picket fence. Yet it is not functional, it depicts only a fragment of a real fence. Neither is it a readymade, but constructed for the purpose of exhibiting it as a work of art, on a shallow plinth. Meyer calls it 'a metonym of what it "depicts"', and metonymy as one way to describe 'the representational strategy of Truitt's inaugural work'. *First* does not refer to a particular fence, but to all the fences Truitt remembers from her childhood days (Meyer 2001:70).

Morris, like Truitt, used architecture to mine sources for his large-scale geometric sculpture. But the 'mimetic illusion' became lost in both their work as they developed a purely abstract art (Meyer 2001:70). It is the metonymy of her earlier works that garners the most interest in this discussion. It takes the form of architectural 'samplers', a strategy used in usurping architecture. I expand upon this aspect in the following chapters, and reference its role in my own sculpture in Part Three.

Figure 15: Anne Truitt, *First*, 1961. Painted wood.

Chapter Four: Post-minimalist confrontation with architecture.

The concern by minimal artists with Gestalt and phenomenology was indicative of their break with modernism. However, pictorial considerations remained unbroken as a concession to high-modernism's careful aesthetic arrangements and ideal geometric forms. Subsequent artists inspired by the minimal artists approached pictorial considerations in a different manner, or rejected them completely. I discuss three artists by way of example, Richard Serra, Gordon Matta-Clark and Rachel Whiteread. The similarities between the work of these artists are twofold. Firstly, all three can be called post-minimalist. This does not imply that their works are similar. It merely indicates a response to the theoretical basis of minimal art. Each of the three artists used the passage of time in their works. Temporality is due not only to the necessary presence of a viewer, but in certain cases reflects the actual life-span of the works.

Secondly, these three artists concern themselves with architecture. In the case of Serra, his large-scale urban interventions function in direct confrontation with their surrounding architecture. Matta-Clark used incisions to cut into buildings. This served to undermine the structural integrity of the structures. In rendering them functionless, Matta-Clark effectively turned buildings into sculptures, simultaneously commenting on what he regarded as the misuse of modernist architectural ideals. The same assessment of the human condition through the autopsy of architectural structure appears in the sculptures of Whiteread. She cast the interiors of structures to open up its interior space to exterior scrutiny.

4.1. Interruption and mass: Richard Serra

Richard Serra's large steel sculptures of the 1970s and 1980s alter and reshape the viewer's perception of space. Only part of these sculptures can be seen from any one vantage point, with the result that one has to take time to experience the work. The pieces change as the viewer's body moves around them. This forces the viewer to become more aware of the urban spaces surrounding them.

Richard Serra is the post-minimalist whose relationship with architecture is perhaps the most antagonistic. He distances himself from the modernist notion of synthesis between the arts, which was stretched to breaking point by the minimal artists. While Robert Morris may have claimed that his structures have architectural implications, Serra's works are premised on sculptural 'distinctions' with architecture. Serra claims that architectural structures work on

the notion of habitable space (1994:33). He does not believe it possible for architecture to be considered sculpture. While architecture serves needs that are 'specifically functional and useful', he claims always to have thought of art as 'non-functional and useless', and architecture as a work of art being 'a contradiction in terms' (Serra 1994:104).

In many instances Serra's sculptures have been rejected by architects. This strikes one as odd, as Serra's work appears to have strong architectural connotations. Architects often introduce 'empty spaces' in their blocks or precincts, in order to 'open up' their buildings to sunlight and air. These spaces acted as a foil to the mass and bulk of the built forms. Serra disturbed this by disrupting these voids with his sculptures. When he was commissioned to place a sculpture in the lower level of Renzo Piano and Richard Rogers' design for Plateau Beauborg in Paris, Serra angered the architects by proposing a sculpture that would have altered the space completely. The resistance of the architects towards Serra's design prevented the completion of the project[18]. (Serra 1994:132).

In an interview with French architect Alfred Pacquement, Serra states that he has never had an excellent working relationship with any architects. He goes on to say that, 'In my sculpture, I often structure or restructure architectural space in a way architects don't foresee; they can become very hostile because they feel that their concept is being changed' (1994:163). Serra's sculptures do not 'work with' urban design projects. Nor do they embellish or decorate, or 'point to' specific buildings. His sculptures create their own space, and work in contradiction to the places where they were created. By declaring own space and creating own situation his sculptures refuse to bow down and serve architecture. He says, 'I am not interested in work which is structurally ambiguous, or in sculptures which satisfies urban design principles' (1994:100). And while Serra claims that his sculptures are non-utilitarian and functionless, their disruption of pedestrian activity does indicate a purpose, even if it is a useless one.

Late modernist public sculpture projects are more often than not abstract. The interpretive difficulty of modernist abstraction has made such projects in effect a line-extension of the galleries, and the prominence of the selected artists served as status symbols for their patrons. While aimed at humanising the urban environment, the artistic elitism only served to alienate the public from the works. As Miwon Kwon argues, 'despite the physical accessibility, public art remained resolutely inaccessible insofar as the prevalent style of modernist abstraction remained indecipherable, uninteresting, and meaningless to a general audience'. She goes on to say that while 'providing a nice decorative effect,' it often simply became 'a corporate bauble or architectural jewellery'. (2002:65). It was against this grain that the U.S. General Services Administration (GSA) started endowing public art geared towards harmonious design and spatial integration between sculpture and architecture. This publicly accessible art

18 Serra's inflexibility regarding his proposal doubtlessly also played a role in preventing his sculpture from being installed.

was aligned towards creating functional sculpture that could serve as public amenities. Kwon noted that 'this amounted to in essence a mandate for public art to be more like architecture and environmental design' (Kwon 2002:67). The result of such sculpture is its loss of autonomy in becoming coincident with the location. Public art could then in effect disappear in the landscape.

It was against this integrationist and assimilative mandate that Serra proposed *Tilted Arc* in 1979. The work was accepted by the GSA to be installed in the Federal Plaza, downtown New York. This was an open square surrounded by federal government buildings. Its installation sparked a controversy about the accessibility of public art, and is an example of sculpture that undermined the architectural surrounds.

Figure 16: Richard Serra, *Tilted Arc*, 1985 (destroyed). Cor ten steel. Federal Plaza, New York.

The steel arc cut across the Federal Plaza, denying physical accommodation to the surrounding community, creating what Miwon Kwon calls an 'aggressively disruptive' intervention (2002:84). Rather than assimilating the surroundings, Serra's sculpture commented on the social divisions and exclusionary aspect of the adjacent Federal buildings. It destroyed the illusion of the public square as a 'coherent spatial totality [underscoring] its already dysfunctional status as a public space' (Kwon 2002:74). *Tilted Arc* served to cut open the disguise of the square that hid the non-integrationist impact created by the surrounding architecture. It thus functioned to work critically against the spatial totality implied by the public square.

Serra felt it crucial that the permanence of the work should be understood. He claimed that he had been assured every step of the way that his work would be incorporated as 'an integral part of the total architectural design', as stipulated in the GSA manual. The installation allegedly also had the support of the representatives of the architectural firm responsible for designing the plaza and the office towers. Representatives from this firm subsequently testified that *Tilted Arc* 'violated the architecture of the site'. (Serra 1989:34-47).

After lengthy hearings and a decade after its installation, a decision was reached to remove *Tilted Arc* from the Federal Plaza[19]. The hearings surrounding

19 Reasons cited for the removal of the work were numerous, while the administration was careful not to comment on the aesthetic merit of the installation. They included a reported rodent infestation in the neighboring buildings, but 'the most grotesque and sinister testimony' were from those who insisted that *Tilted Arc* made the federal plaza a dangerous place to be during political demonstrations. It was claimed that it not only impended police surveillance, but could also serve as a blast wall for terrorists. A 'security specialist' testified that *Tilted Arc* was angled in such a way that it could vent explosive charges with greater effect toward both federal buildings. This labeling of the work as a 'terrorist device' allowed the government to play on the paranoia of the public. While the work was installed under a Democratic administration (Serra was invited to the White House and congratulated by then president Carter for adding to the U.S.' cultural heritage), it were representatives from a Republican administration who called for its removal. (Serra 1989:34-47).

the legality and social concerns of the sculpture lasted five years, the debate serving to assert the critical basis of site specificity. In 1989 Serra was asked to relocate it to a less offensive site. His response affirmed what site-specific sculpture had become, stating that *Tilted Arc* 'was not meant to be "site adjusted" or..."relocated", and that in restructuring the site, such works are conceptually and perceptually part of the organisation of the site (Serra 1994:203).

This type of site specific art, dependent upon its environment, was defined by James Meyer's 'literal site' (2000:24). He labelled such a site as conforming to the 'physical constraints of [the] situation, even if (or precisely when) it would subject this to critique' (2000:24). *Tilted Arc*'s critique arose particularly because of its discomposure in the environment. Meyer calls it a 'critical monument with claims to resistance' (2000:24).

Meyer further talks about a 'mobile' site, which can amongst other things, court its own destruction. In that way the artwork is wilfully temporary, stating that 'its nature is not to endure but to *come* down' (2000:25). This is especially true in the works of Gordon Matta-Clark, and is also relevant to Rachel Whiteread's *House*.

4.2. Cutting: Gordon Matta-Clark

> 'One of my favourite definitions of the difference between architecture and sculpture is whether there is plumbing or not' (Matta-Clark 1976:75).

Matta-Clark was a student of architecture before entering the fine art world. His education in architecture was dominated by Le Corbusier's theories of the ideal city, and the possibility of attaining a utopian urban environment through city planning[20]. The misuse of these ideals by urban planners affected his later artwork. His building cuts commented on architectural styles' preoccupation with symmetry and geometry. Andrew Causey claims that Matta-Clark 'saw modernist architecture's preoccupation with geometry as equivalent to capitalism's desire to pigeon hole individuals and classes of people within closed compartments' (1998:200).

Matta-Clark performed dissections on buildings. Through these cuts, segments of buildings were removed and installed in gallery spaces. Together with his photomontages of the sites, these segments served as the only evidence of his interventions. This is because all the buildings were subsequently destroyed. Matta-Clark's choice of sites was defined by the failure of certain buildings as permanent structures. All were abandoned and awaiting demolition, and reflected

20 Le Corbusier advocated that form should follow function. He also called the building a 'machine for living', and designed building and living units in accordance with ratios of human proportions and ergonomics. He advocated stringent city planning structured on grids, where high-rise buildings act as islands within green zones. His utilitarian approach was taught at many architectural schools, and evolved into much of the theoretical basis of modernist architecture. Subsequent city planners and architects, who standardised the designs irrespective of location, corrupted the ideals of Le Corbusier and his contemporaries. In the long run it was proven that high-rise apartment blocks were linked to higher rates of crime and depression.

the temporality of the built environment. While serving to comment on real-estate speculation, urban development and gentrification, they also highlighted the failures of modernist architectural ideals. These are articulated by Matta-Clark below:

> '...Modernity, proliferated by the development of the International Style, must be seen in the development of post-war American imperialism. The state of that architecture reflects the iconography of the Western Corporate axis. It is first the abuse of Bauhaus and early Purist ideals that I take issue with. Then I must clarify how Monolithic Idealist problem-solving has not only failed to solve the problems but created a dehumanised condition at both a domestic and institutional level. So what I am reacting to is the deformation of values (ethics) in the guise of Modernity, Renewal, Urban Planning, call it what you will' (1976:77).

While Matta-Clark seems to comment on class and urban planning, breaking the symmetry inherent in architectural traditions is perhaps the most destructive force in physically deconstructing a building. Although he was called a behavioural architect by Donald Wall (1976:74) I see various similarities between Matta-Clark's building cuts and the collection of architectural styles that has become known as Deconstructivism[21].

According to site-specific artist James Wines, what makes recent architectural work 'deconstructive' is 'the use of certain formal devices - rotated axis, shattered grids, crossed beams, tilted walls, and radical juxtapositions of materials - that appear to violate the more orderly and ideological tenor of the original sources' (1989:135). This violation of the original structure by Matta-Clark supports the claim that he physically deconstructed buildings.

Deconstruction adds to John Baldessari's claim that Gordon Matta-Clark was a minimalist with an expressionist execution (1985:19). Matta-Clark is a second generation minimalist, and instead of constructing objects he used ready-mades. His ready-mades were buildings, and he took the geometry of minimalism and transferred it to architecture. In a statement in 1977 he remarked, 'Why hang things on the wall when the wall itself is so much more a challenging medium? ...a simple cut or series of cuts acts as a powerful drawing device able to redefine spatial situations and structural components. ...Each building generates its own unique situation' (2007:188).

There are significant late minimalist influences in his work. This is evident in the use of enclosed interior space, its spatial context, and the viewer's relation to the enclosed object. Opening up this enclosed space was done through destabilising architecture, and the viewer. However, by removing or splitting areas of the floor, viewers were left with little place to orient themselves in relation to the work, as was possible with minimalist sculpture. Audiences at his sites recall

21 According to Mark Wigley (as cited in Steele, 1997), the roots of Deconstructive Architecture lie in the works of the Russian Constructivists. *Deconstructive Architecture*, a seminal exhibition held at the Museum of Modern Art in 1988, first identified this trend in architecture. Mark Wigley and Philip Johnson related it to Russian Constructivism in its 'threat to tradition by breaking the classical rules of composition, in which the balanced, hierarchical relationship of forms creates a unified whole'. According to them pure forms were 'used to produce "impure", skewed geometric compositions...placed in conflict to produce an unstable, restless geometry' (Steele 1997:203).

Figure 17: Gordon Matta-Clark, View of *Bronx Floors*, double doors, 1973. Bronx, New York.

vertigo and fear, together with a sense of the building's 'movement and recession in space' (Lee 200:153). Here the phenomenological and sublime combined to evoke feelings of apprehension at the discord in the audience.

In *Bronx Floors* (Figure 17) Matta-Clarke cut simple rectangles and squares into the floors and walls of an apartment building. He opened up views between the cubicle-like residential units of a deserted building awaiting demolition. As these were clandestine cuttings, his only spectators were groups of drug addicts and squatters, subsequently followed by the police and firemen. What *Bronx Floors* served to illustrate was the failure of the buildings to serve indefinitely as habitable

Figure 18: Gordon Matta-Clark, *Bronx Floors*: Threshole, 1972. Bronx, New York.

Figure 19: Gordon Matta-Clark, View of *Splitting*, 1974. Englewood, New Jersey.

space. It also highlighted the architectural ethos of demolishing the old in order to create monuments to new symbols of prosperity. The *Bronx Floors* segments, removed from the buildings, were first exhibited in 1972 (Figure 18). By tilting their once horizontal axis alongside the flat vertical plane of the gallery wall, they were presented as works of art. Each layer of the floors was exposed to the viewer's scrutiny. Linoleum surfaces covered the floorboards and in turn the structural beams, exposing the historical stratum of construction, habitation, and then destruction.

Matta-Clarke's reputation was built on *Splitting* (Figures 19 & 20). He procured the use of a house in suburban New Jersey through an art dealer and his

Figure 20: Gordon Matta-Clark, View of *Splitting*, 1974. Englewood, New Jersey.

wife. They had bought the property as an investment, and would in due course demolish the property to redevelop it. The area had once been a prosperous neighbourhood housing commuters fleeing the confines of Manhattan[22]. It had since fallen into decay like many of the lower density areas surrounding the urban centre, and the tenants were evicted. Matta-Clark transformed this building into a sculpture by splitting it through its centre, removing the cinderblocks on its corners, and tilting the two halves away from each other. The cut divided the entire body of the house from its roof to its foundations, neatly cutting everything in its path. By removing the corner foundations his team lowered the base on the sides by several cases of brickwork. This allowed the narrow split inside the house to open in a wedge to the sky. Visitors to the site responded to the kinaesthetic manner in which they experienced the widening crack as they traversed the house. Matta-Clark received a generally favourable response from contemporary critics. Many claimed that he had succeeded in turning a house into sculpture (Crow

22 Suburban life cultivates the private sphere, cut off from the demands of civil society. The emergence of gated estates in South Africa and abroad exemplify this idealised living environment, and the autonomy of the law enforcement systems attest to this.

2006:74-84).

Matta-Clark's also received many letters criticising the work as an attack on the female domestic order. Maud Lavin called *Splitting* a 'wounding' of the house, a male violation of the female domestic arena. Although she says that she does not read the work as anti-female, it is certainly 'concerned with male virility' (1984:138-141). While Matta-Clark's work was seen as wanton destruction of buildings in a way that can only be described as misogynistic, he was more concerned with transparency. He achieved this with more success in his later European works, most notably *Conical Intersect*.

Matta-Clark was invited to be part of the Paris Biennale in 1975, where he was granted the use of the two former houses adjacent to the Centre Georges Pompidou. These were soon to be demolished[23]. Working largely with hand tools, he cut a conical shaft upwards from the side of the building, granting visual access from the street into the house (Figure 21-22). The public position of the intervention on a busy intersection allowed a great number of local residents and onlookers to witness it daily. For most who did not know it was an artwork it was just a hole, granting visual access into a typically bourgeois interior. One elderly passer-by said that it gave sunlight to spaces that had never seen it, in that sense, it was a kind of *son et lumière* experiment (Lee 2000:180). Above all, *Conical Intersect* seems to be a critique of the ideology of progress, juxtaposing the past and present built environment and the ever

Figure 21: Gordon Matta-Clark, *Conical Intersect*, 1975. Colour photograph, 50.8 x 40.6 cm.

23 In 1975 Paris was redeveloping Plateau Beauborg, to make way for the new cultural centre that was to house amongst others the Centre Georges Pompidou. Necessary for the construction of the new buildings was the demolition of existing structures, notably that of two houses dating from around 1700. These houses were all that were left standing in a construction project started more than twenty years previously. This urban redevelopment is reminiscent of the Haussmanisation of Paris that took place more than a century before, aimed at clearing narrow streets and tightly packed houses to make place for wide boulevards and public squares. The destruction of historical sites seems to be a prerequisite for progress.

continuing cycle of construction and demolition. For me this construction and demolition process highlights the destruction of social spaces, and the traces of historical residues left in the appropriation of 'new' space.

Matta-Clarke's most ambitious project was undertaken for the *Internationaal Cultureel Centrum* (ICC) in Antwerp. In a letter to the curator he explained that he intended to mount an exhibition that would involve 'transforming unused structures or spaces into revitalised areas' (Crow 2006:110). The ICC secured an office block for him whose previous occupants had gone bankrupt. Matta-Clark's name for the work, *Office Baroque*, is apparently a pun on 'office-went-broke'. However, his initial plan for a notional sphere cut into the structure was halted by the City of Antwerp as it would pose a danger to the public[24]. The building's owners gave him permission to continue as long as he limited his cuts to the interior. The basic plan was derived from overlapping circles. On the first floor, arcs from two circles became visible where they intersected, mapping what he called 'a peculiar, almost row-boat shaped hole' (Matta-Clark 1977). The shape mutated as it rose from floor to floor, the cuts dictated by the available space and structural beams (Figure 23). The work contained an implied spatial rhythm as viewed from up and down through the layers, colliding with walls and partitions. Thomas Crow describes this work as a 'more thoroughgoing realisation of [Matta-Clark's] alchemical conception of building as a provisional suspension between aerial and subterraneal

Figure 22: Gordon Matta-Clark, *View of Office Baroque*, 1977. Antwerp, Belguim.

extensions'. Further, it complicated the experience for the viewer, to the degree that it could never be seen in its entirety (2006:110-114). There were few visitors to the site however. Most of those who witnessed it did so through breaking into the building, which had been padlocked by the ICC. The subsequent exhibition of this work consisted of photographs documenting the building, and two of the removed cuts.

Although the physical act of deconstructing a building, and through an almost alchemical procedure turning it into a sculpture interests me, it is the evidence of Matta-Clarke's building cuts that are most relevant to my own work. These are not his photomontages, which I do not consider to be very successful as documentation, but rather the pieces of the building

24 This project was eventually realised in *Caribbean Orange*, although the building he acquired for this project was substantially smaller, and located in New York.

Figure 23: Gordon Matta-Clark, *Bingo*, 1974. Building fragments.

that once removed, were placed in the gallery space. Aesthetically, the segments removed from Matta-Clark's *Bingo* (1974) are one of the most influential pieces to my own work. By displaying a segment of a building within another location, this segment functions in a completely different manner to its original location (Figure 23). It serves as a link between the viewer and the object. This is achieved by the perceiving subject's experience of or recognition of the object, and the history imbued in the object.

4.3. Casting: Rachel Whiteread

Rachel Whiteread makes casts of the spatial voids below or inside objects, furniture and structures. These spaces are empty and are defined by what surrounds them. Through casting she solidifies the absent spaces. In doing so, absence becomes presence, by directing the viewer's gaze towards the unseen spaces of everyday life.

Social spaces are continually in a process of construction, by ourselves or others around us. It is always being broken down and rebuilt, under a process of constant revision. Because it functions in time, Doreen Massey calls it 'social time-spaces' (1995:36). Whiteread succeeded in disrupting the social time-space continuum. She achieved this through effectively freezing an object in time by casting its adjacent space. The cast of this object (or structure) then also functions as an object or structure. At the same time it depicts the original object. Richard Shone notes that a cast of an object traps it in time, 'eventually displaying two histories – its own past and the past of the object it replicates' (1995:52).

In 1993 Rachel Whiteread secured the use of a Victorian terraced house in Bow, in the East End of London. It was the last house in a row of terraced houses along Grove Road, and would in due course have been demolished to make way for an urban park. The park which was already surrounding *House* once housed row upon row of houses behind the Victorian terraces. They were post-war 'prefabs' intended as temporary structures, but they were still in use in the 1970s.

The area surrounding Bow was in a process of gentrification spurred on by intense development of the Docklands area to the South. This aided settlement of City workers from Central London to Canary wharf. The East End was thus seeing a transformation from an industrial and working class residential district into a speculative real-estate development. The last tenants of 193 Grove Road had moved out, and the house was soon to be demolished. Whiteread proceeded to cast the interior spaces of the house, boarding up the windows before spraying Locrete (a type of concrete) onto a steel grid reinforcing. The concrete was about 250 millimetres thick, and reinforced in order to be load bearing. After the concrete had cured for the required period of time, a construction company proceeded to remove the exterior walls, roof and front terrace. What remained was a cast of the negative interior space of the house.

The outcome was that Whiteread had effectively built a life-size anti-model of a house. With the negative space inverted, it served to resemble a number of typical modern houses. This was aided by the one major structural change Whiteread made to the house; in order to avoid unwanted connotations caused by the V-shaped roof it was levelled off. The result was that the *House* resembled a paradigmatic modernist structure.

Jon Bird claims that architecturally, this served to 'annex *House* to the codes of the Modern Movement' (1995:123). It even lost some of the Victorian mouldings, further transforming the nineteenth-century house into some kind of an abstract composition.

By calling the work 'House' and not 'Home', Whiteread distanced herself from sentimentalised domestic associations. A 'home' implies a private space, enclosed by a roof and four walls, while the associations conjured up by 'house' is public. This refers not only to the absence of closed off social space[25], but also illustrates its metonymic function. *House* is then representative of an area, a local community or an architectural style. As Jon Bird states, '*House* appeared to function as the metonymic link between both the particular and the shared experience of the realities of city life at the end of the twentieth century, and the remembrance of other patterns of neighbourhood and community...' (1995:116). Through conjuring up a shared remembrance Whiteread successfully made use of an archetype[26],

A Jungian reading of the archetype holds for the viewing subject 'innate *dispositions* to respond to certain basic kinds of experience' (Jung 1968). Whiteread used an archetype as an evocative strategy. This had profound effect on a number of viewers who responded in similar ways. Carl Jung placed emphasis on the collective nature of the unconscious. The Jungian perception of the unconscious was one

Figure 24: Rachel Whiteread, *House*, 1993.

25 There was no longer closed-off social space. Rather, the social space was solidified and completely impenetrable.

26 Jacques Derrida uses 'archetexts' to illustrate his linguistic deconstructions. Borrowed from the word 'archetype', these archetexts needed to be representational of a certain time or a certain way of thinking to best identify binary opposites. Archetypal architectural styles and buildings can be deconstructed in a similar way. (Wines 1987:136).

shaped by the shared and accumulated experience of humanity, 'which settled down sediment in the form of' 'archetypes'. (Harrison, Wood 2004:378).

Whiteread's *House* also underscored nostalgia. Nostalgia can take the form of an evocative emotional response bringing forth feelings of absence, loss and transience. Transience is perhaps one of the most profound concepts evident in Whiteread's casts. However, through evoking repressed feelings of nostalgia a political will can also be evoked in communities, as the media furore over *House* proved. This media frenzy was an integral part of the rapidly changing East End environment. Doreen Massey explained that in the local area of Tower Hamlets, 'memory and nostalgia [were] active forces precisely in the constitution of communal identifications and political subjectivities' (1995:41). The British National Party had won the local election in the year *House* was constructed. This far-right party's victory was built on the battles surrounding housing, with local concerns pitted against the 'other' immigrant classes. At the time there was a severe housing shortage and the area of Bow, in which *House* stood, was a relatively white enclave within the East End. *House* came under fierce criticism from the British National Party and local councillors for being obscure, wasteful and elitist.

Fortunately *House* was not praised as defending the 'whiteness' of Bow. Its solidness disallowed such readings, as Doreen Massey wrote, '*House* insists on the impossibility of recovering the past' (1995:43). Nostalgia is a narrative that idealises lived experience by stripping it of specificity (Bird 1995:116). Repressed feelings of nostalgia can often erupt in a political way, with communities feeling a sense of belonging and non-alienation, but also evoking xenophobia.

Not all critics of *House* were against elitist art projects 'understood' by just a few and 'incomprehensible' to the common man. Criticism also arose out of the local communities due to a dislike of *House* as a representation of the East End. It resisted rather than accommodated the surrounding buildings. People in similar houses reacted angrily (Colomina 2001:74).

Whiteread also breached the boundary of public and private spaces or places, by removing the barriers between inside and outside. Opening up the insides of a building to public scrutiny is a very voyeuristic act. Living spaces within the urban environment are already conducive to scopophillia, due to their close proximity. Living spaces are private arenas of safety and comfort, that 'harbours the past and history of its occupants' (Dennison 2001:34). Matta-Clark and Whiteread open this 'sphere' of privacy, 'as it takes on a semi-public dimension as permeable, open to spectacle' (Lee 2000:114). However, a home is not only a utopian place of safety and shelter, but also a place of secrets.

Whiteread's sculptures resemble minimalist objects, but instead of the precision of machine manufacture we see the fissures or traces of history. These are transmitted to the objects through the casting process. The quotidian rituals of life are shown through

displaying forensic-like evidence of years of usage. The process used in casting *House* enabled Whiteread to extract not only the space of the cubic rooms, but also the residue of the previous inhabitants; pieces of paint, wallpaper and dust. Beatriz Colomina calls casting 'an interrogation of space: violently pulling evidence out of it, torturing it, forcing a confession'. She goes on to compare casting with 'the brutal techniques of medical enquiry and diagnoses', seemingly benign, and the 'violent excavations and demolitions involved in psychoanalysis.' (2001:72). These comparisons with medical interrogation relate to Matta-Clark's dissections and incisions. They also evoke approaches used in Gestalt therapy, where the minutest detail is viewed and inspected in a highly confrontational manner, albeit in the context of a greater whole.

James Lingwood explains the Gestalt evident in *House* most succinctly:

> 'Sculpturally, *House* referenced minimalist concerns; solidity and sense of wholeness, and the repetition of unit structures. But instead of emphasising the presence of the body it emphasises the very absence of the body. The solid mass of the sculpture indicated wholeness, but this gestalt was contradictory. While the wholeness allowed instant comprehension, the complete inaccessibility of the structure warranted further inspection. *House* was both a closed architectural form and an open memorial...' (Lingwood 1995:8).

What I read most strongly in Whiteread's *House* is a criticism levelled at architecture. This might not have been her intention, as her other projects of the time have more to do with transience and the exploration of space than with architecture. But where this work functions for me in contradiction to architecture is through its ability to make the unseen, seen. In doing so Whiteread exposed the unitary structures so favoured by modernist architecture as a low-cost solution. The result of such standardised structures on the living environment is a loss of individuality and regional identity.

In conclusion, Part One of this dissertation surveyed the negation of modernism during the sixties through a study of the work of certain minimal artists, as well as the post-minimalist's uneasy relationship with architects and architecture. I discuss this aspect in Chapter 4 and go so far as to label it 'a confrontation with architecture'. This is an important point because it lends strength to the title of my dissertation, namely 'Usurping Architecture: Sculptural Resistance to the Built Environment'.

After discussing Richard Serra's antithetical relationship with architecture, and Gordon Matta-Clark's physical annihilation of architecture, I move onto a discussion of Rachel Whiteread's so-called 'medical enquiries' into architecture. Her work is closest to my own work, although there are of course many points of difference. I too am interested in using found materials to make a cement cast, and in interrogating

Figure 25: Rachel Whiteread, *House*, 1993.

the surface of the material. As will be clear from a reading of Part Three where I discuss the body of work, I have attempted to remove all traces of previous history from the inner surfaces of my moulds. I prefer to work with clean surfaces. My aim is to eliminate additional visual evidence so that the viewer can focus on the form and material of the sculpture.

While Whiteread used the spaces of already existent objects and structures[27], I construct the moulds I use to cast my architectonic forms. Consequently I often do not know *exactly* whether a sculpture will 'work', as I have to work with negative space in mind while constructing the mould.

27 There are exceptions to this process. In *Ghost*, the work preceding and greatly informing House, Whiteread constructed a room that had been stripped of all mouldings and fittings. Her *Holocaust Memorial* in Vienna was similarly constructed, but this time informed by an actual bookcase she had previously cast.

Part Two: Practical Methodology.

Materials

'Truth to material' implies that the material used in the production of a sculpture aids in its conception and production. This is in many ways true in my use of concrete. I do not use this medium to mimic the products of other sculptural techniques such as stone carving, woodcarving, or traditional mould-making processes that employ the use of plaster, wax or latex. I cast concrete into moulds adapted from those used in the construction industry, such as formwork and shuttering. Nor do I rely on purchasing assembled modules such as pre-cast concrete. I prefer to work in immediate contact with the material, constructing the form and structure of the objects from the base materials up. For this I use water, steel, a selection of aggregates, and Pretoria Portland Cement (PPC).

The scale of cement production around the world is staggering. By 2007 the United States alone was using 100 Million tonnes a year, while by 2008 China was consuming 50 percent of the globe's cement (Economist 2008). In South Africa the reinforced concrete pillars which rise from plots of redeveloped land signal the expansion of cities and the growth of the construction industry.

After water, concrete is the second most widely used material on earth. Most commonly it consists of Portland cement, potable water and aggregates. While the cement used in its production has differed, the basic recipe for concrete has been known since ancient times. The cement used by the Romans is most similar to Portland. They used quicklime, pozzolanic ash, and an aggregate made of pumice[28]. Modern cement, such as the most commonly used Portland, consists of calcium, silicon and aluminium. It is produced by heating limestone with clay, until it bonds into a solid mass known as a clinker. This is then crushed with a source of sulphate (e.g. gypsum) to produce cement powder.

By adding water to cement, it hardens through a process known as hydration. A lower water-cement ratio results in a stronger bond than a higher water ratio. Aggregates are added to the cement paste and make up the bulk of the concrete mixture. Both fine and coarse aggregates, like sand, gravel and crushed stone contribute to the high compressive strength of concrete. Reinforcing steel reduces the tensile stresses placed on concrete, and can be pre-stressed for extra strength[29]. In order to maximise the strength of concrete it needs to be compacted. This can be achieved through vibration. Concrete also needs to cure at an appropriate environmental condition until hydration is complete. A moist environment increases the hydration, lowering permeability and increasing the strength of concrete. The hydration process can be accelerated

28 The Romans and Egyptians added volcanic ash, allowing concrete to set under water. The Romans also added horsehair to lessen the ability of concrete to shrink while hardening, and added blood to make it more frost resistant. Recent technological advancements have seen the introduction of aggregates and admixtures capable of conducting electricity. Compressed concrete can thus be heated, act as sensors to measure passing traffic on freeways or count people entering a room. Using concrete itself as a conduit for electricity is proven to be more reliable than embedding wires and sensors in the concrete (Economist, 23 September 2006).

29 Fibre reinforcing is also commonly used, although there is no widespread distribution of it in South Africa. Using synthetic fibres to reinforce concrete allows a thin layer of concrete to be suspended over large areas.

or retarded through the use of chemical admixtures.

Potable water should be used in the production of concrete. When water and cement is mixed, it forms a cement paste. This paste glues the aggregate together. Raising the water content in the plastic concrete increases the concrete's workability. But excessive water will lead to increased bleeding (through the mould or as surface water) and the segregation of aggregates. This results in a lower quality concrete.

While expansion occurs when concrete is subjected to heat, contraction is a constant part of its curing process. Concrete can continue shrinking for up to thirty years. However, the rate of shrinkage falls rapidly and is generally negligible after some time.

It is typical for concrete to crack, either during the curing process or during finishing. Cracking is exacerbated by thermal effects such as extreme temperatures. It also occurs as a result of usage and the tension to which the concrete is subjected to. The extent of cracking can be limited during the hydration process, and the first three days are crucial to this. Extensive cracking also appears when the cement-aggregate ratio is too high.

Cement and concrete is the medium in which I have chosen to work. Although there exists a sculptural tradition of using concrete in figurative sculpture and so-called outsider art, my use of this medium stems from architectural and spatial considerations. Architecture is the locus at which space, subject and object meet. My interest in architecture comes from my experience of the built environment and how sculpture acts in resistance to that environment.

Processes

The shape and form of my sculptures are generally conceived as thumbnail sketches. To explore the feasibility of these sketches as sculptures, some of these drawings are transferred onto large sheets of used architectural blueprints with charcoal. These larger drawings aid in the planning and execution of my moulds, into which concrete will be poured. Once I have decided upon a suitable form I proceed to construct a mould.

I use shutter-ply board or an equally suitable timber for the construction of the flat and angular parts of the moulds. For curved areas I use hardboard which is thoroughly moistened and then clamped in a curved press while it dries. Once all the timber pieces have been cut or curved I sand the inside panels to a smooth finish. While the different segments are being joined I start painting them with gloss enamel. This is in an effort to render the timber structure waterproof from the inside. I do this to minimise bleeding through the wood during the casting process, as this would result in brittle areas on the finished product. I leave one side of the mould open through which to pour the concrete.

To increase the strength and extend the life of the sculptures I use a steel reinforcing grid as an armature. For this I use mild-steel reinforcing rods, welded togeth-

Figure 26: Steel armature used to reinforce the concrete.

er and spun with 100mm Weld-mesh. While concrete has a high compressive strength, its tensile strength is comparatively weaker. To counter this I fill the steel frames with polystyrene, which decreases the weight of the concrete by imbedding it with voids. The armature is then inserted into the mould. The final preparation is the application of a thin layer of soft-soap or a similar release agent to the inside of the mould. The outside of the mould is also sealed at the jointing, and tightly wrapped with plastic.

Once the mould is ready to be cast I place it on a vibrating table. This is a low table on springs, to which I have attached a motor with an asymmetrical rotor, which causes the table to vibrate. I then proceed to mix the concrete. For aggregates I prefer to use a mixture of washed sand, grit, stone and water. I use larger stone (19mm and up) when the steel reinforcing is not in too close proximity to the inside of the mould. If the gap is too narrow I limit the size of the larger aggregates to less than 13mm stone.

The cement-aggregate ratio differs according to the strength of concrete required. I have found that a ratio of 1:4 is most suited to my needs. I use different size aggregates to achieve the greatest compressive strength. Usually this is one part grit, one part stone, and two parts sand, but this is dependant on the size of the stone. I use varying amounts of water depending on the complexity of the mould. Less water yields a stronger and more durable product. Using more water results in an easier flowing concrete with a higher

Figure 27: Inserting a void within the mould.

slump. I use this for complicated moulds where concrete has to fill a narrow gap. But while a higher slump allows the aggregate to compress more easily and aids in pushing out air bubbles, it also encourages bleeding. This results in excessive water being pushed to the surface during compression, as well as compromising the strength of the concrete. Where possible, I use the minimum amount of water.

The greatest strength concrete is achieved by first mixing water and cement into a paste with a high-speed mixer, with a water to cement ratio of 0.30 to 0.45. The remaining aggregate and water is then mixed with the paste. What is of the greatest importance, however, is the uniformity of the mix. I usually mix my concrete by hand, and add water until the *dagha* (the plastic concrete) is of the desired consistency.

I pour or ladle the *dagha* into the mould for a period of up to 45 minutes, while continually running the motor on the vibrating table. This is to ease the compression of the concrete, so that the gaps between the larger stones are filled by smaller stones, and those gaps by sand and grit. All of these are bonded together by the concrete paste. Any water that has collected at the top of the mould has to be removed. It may take time for any excess water to rise, so I usually leave the mould for a few hours, and return to remove the water and fill in the last of the concrete. The exposed concrete is then plastered to a smooth finish using a plastering trowel and float. Alternatively, thick plastic sheeting can be placed over the concrete, and then levelled with a float.

Once the concrete has begun to settle I cover the entire mould with plastic, to increase hydration and consequently the strength of the cast. Once the concrete has settled completely, I pour water over the semi-hardened concrete to keep the inside of the wrapped plastic moist. This is repeated at regular intervals. I leave the concrete in the mould for a minimum of ten days. A fortnight is ideal.

As concrete contracts somewhat during curing, the mould is generally fairly easy to remove and can be

Figure 28: Compacting concrete through the use of a vibrating table..

aided by using compressed air to separate the mould from the cast. The ease of its removal also depends on the complexity of the mould and whether it is to be reused. I immediately clean what remnants of the mould or paint remain on the sculpture, while continually wetting the surface. As soon as this is completed I rub Cobra floor wax into the cement, and polish it very lightly. This process is repeated as necessary, particularly when the sculpture has been exposed to the elements. The wax locks some of the moisture in the concrete. Over the next few weeks and even months the colour of the concrete will gradually lighten.

Figure 29: Removing the mould.

Part Three: List of Artworks: The Formwork Series.

Step. 2006. Reinforced Concrete.

Step consists of two flat, rectangular, blocks. They are cast together so that they are joined along the length of the blocks but at opposite ends. The broader block rests on the one below. The width of the upper block cantilevers 210 mm over space, while the lower block extends by 160 mm underneath. The weight of the lower segment counters the weight of the upper segment. The entire piece is 200 mm in height, with each of the blocks rising by 100 mm. The height of each of these blocks is similar to the height of an average step on a staircase, and goes some way in resembling a dislocated pair of steps. The width of the piece is 570 mm and was based on the width of my shoulders.

Step was the first work of this series in which I used ergonomic measurements in designing the sculpture. The width, height and shape invite the viewer to make associations with structures they are familiar with. A step is a functional structure aiding humans in traversing uneven terrain or accessing differing levels. Their function allows users to ascend or descend through space, and often serve as links between separate, closed off spaces.

'Step' is also a verb, signalling the action taken to counter the purposeful offset of balance forwards or backwards. It can also refer to progress or digress not related to the physical action of walking. While the stepping action is one taken by many people on a daily basis, structural steps are features of the built environment which most people utilise every day. *Step*, however, does not provide the same functionality. One can place one's feet on the blocks, rising slightly in the process. But it would not lead its user anywhere. One can only rise from one level to the next, at which stage the counterbalance of the user's weight will topple the structure, rendering even this minimal function useless. The function that *Step* does provide is in engaging the viewer in a manner which invites a kinaesthetic response. Three of the works in this series use the appearance of steps as a strategy to invoke a phenomenological response in the viewer.

Twins. 2006. Reinforced Concrete.

Twins was a precursor to *Step*. I originally cast the smaller of the two structures, cantilevering the horizontal part of the upside-down L shape. Despite the evident overhang of the structure it does not lose balance. The weight and width of the vertical end holds the structure upright. Further, the horizontal appendage is shorter and evidently lighter than the vertical one.

On its own the first structure does not function in engaging the viewer in a specific way. It is merely a small and rather ineffectual object. The second structure is slightly altered. The horizontal cantilever is markedly longer than its vertical support. By the overextension of the concrete overhang, the structure appears unstable, unbalanced, and allows for the possibility of collapse.

As a pair, these structures elicit a faint dichotomy. Both are similar enough to appear as equal. They are of the same height, that is small and objectlike, inviting a personal inspection by the viewer. By the pointedly longer cantilever of the second structure the work appears unstable.

Poke. 2006. Concrete, Steel.

One of the earliest works of this series, *Poke* was born from my experience of the hazards involved in construction. While injury is an accepted risk in the construction industry, this work presents a threat to the quotidian ritual of walking. It consists of a concrete block, square on one side and curved to a point on the other. The structure is elevated by a kind of flange acting as a support, while at the same time exposing four steel rods into the air. These rods have been cut at an angle, projecting the sharpened nibs menacingly towards the viewer.

This structure does not reference architectural elements directly, and does not invite the viewer to interact or use it. The title indicates that it could pose a threat to the preoccupied passer by. *Poke* presents a menacing concrete object.

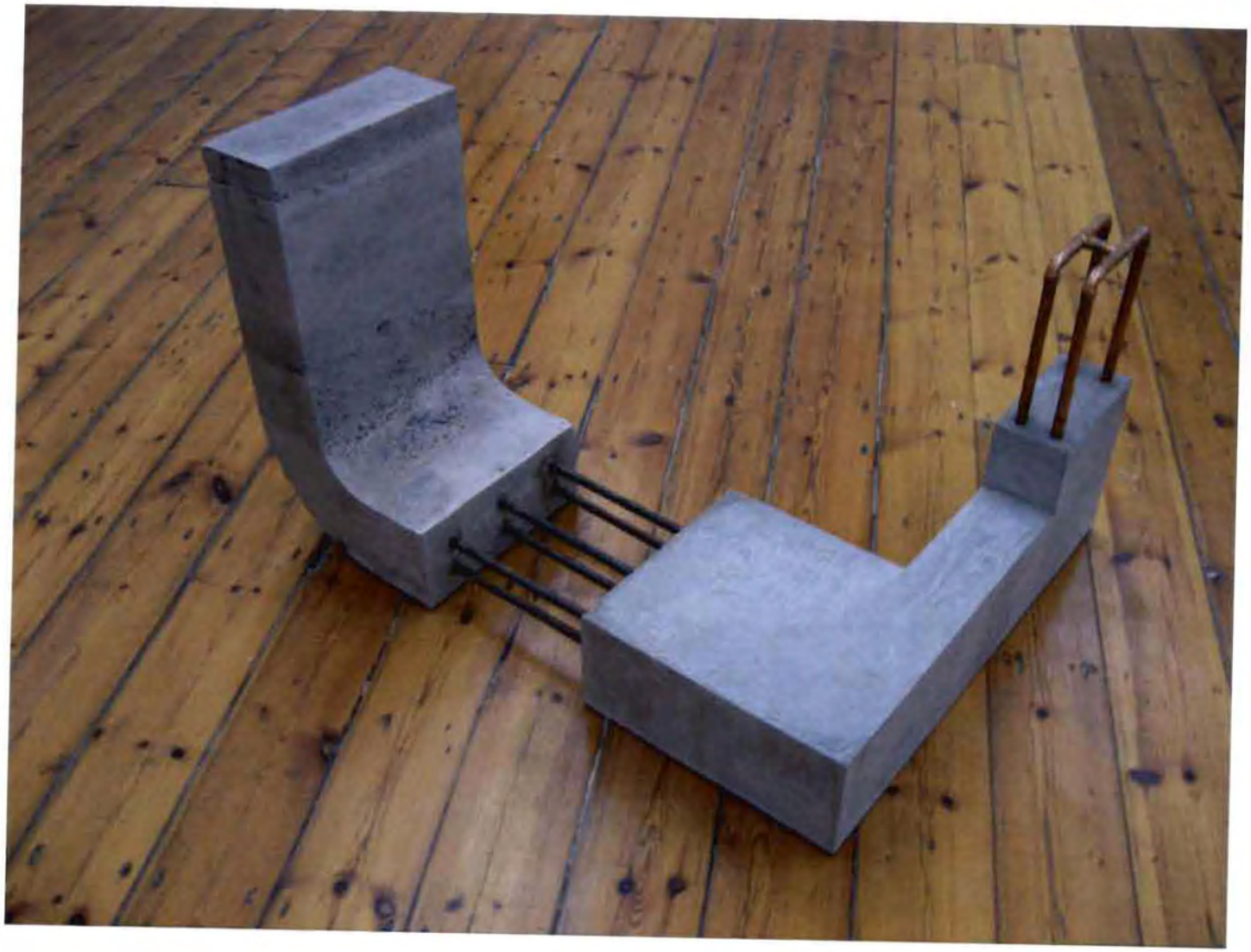
Dolos. 2006. Ciment Fondue, Steel

Dolos consists of three concrete pillars. All three are joined at the top as if on the same axis. Two of the pillars are parallel, but are separated by the third, which is swung forward ninety degrees. The work is rough, the colour dark, and it is supported rather awkwardly by the three pillars.

The title *Dolos* refers to the large pre-cast concrete structures used for the construction of breakwaters and reclamation of the sea. These structures take the form if an 'T' shape, with the top and bottom horizontals extended and twisted at right angles to each other. When multiple *dolosse* are placed on top of each other they interlock, and once they have been compacted by earthworks or the force of the sea, they become impossible to shift.

The contemporary *dolos* was named after homemade toys made from the tailbones of oxen. Some of these bones represented ox-wagons, while the smaller bones resembled oxen. The toy resembling an ox was a 'dolos', and the collective term for the toys were 'dolosse'. This was also the name of the game, which is an uniquely South African creation, as is the newly concreted 'dolos', which was invented by Eric Mowbray Merrifield.

While *Dolos* refers to the children's game, the shape of the work is also suggestive of an optical illusion often found in children's books. The 'impossible columns' is an illustration showing the pedestals of three columns. When the eye follows the columns upwards, the middle column fades away into the space between the outer two. When constructing *Dolos* it was my intention to present the viewer with a puzzle. And although *Dolos* resembles the optical illusion of the impossible columns, it does not present the viewer with any illusion. Rather they are faced with an ambiguous geometric structure.



Formwork no.9. 2006-2007. Concrete, Steel, Copper.

Formwork no.9 deals more directly with the formal visual aspects of the built environment during construction than many of the other works in this series. The materials also differ from some of the other structures in that the inner steel reinforcement rods are exposed. This is an element of concrete construction that is always hidden, visible only during construction or demolition. When the construction process is interrupted or permanently suspended, the steel reinforcing is also often displayed on the uncompleted structures. When exposed to water or damp the mild steel rods rust. This weakens the concrete structure. What it serves to illustrate in this work is the process of working with concrete. In this work I also utilised copper plumbing pipes and joints. Although these materials are often seen in completed structures they are usually hidden from view.

This work exposes structural elements allowing the viewer to see the inside of the solid form through exposed structural protrusions.

Tilted Shelves. 2007. Reinforced Concrete.

The idea behind *Tilted Shelves* evolved from a functional object, whose function was ambiguous or that had became compromised in some way. I began looking at objects such as tables or chairs. However, I did not want to be too specific in replicating an existing object, and settled on constructing a tall concrete block that incorporated useless shelves.

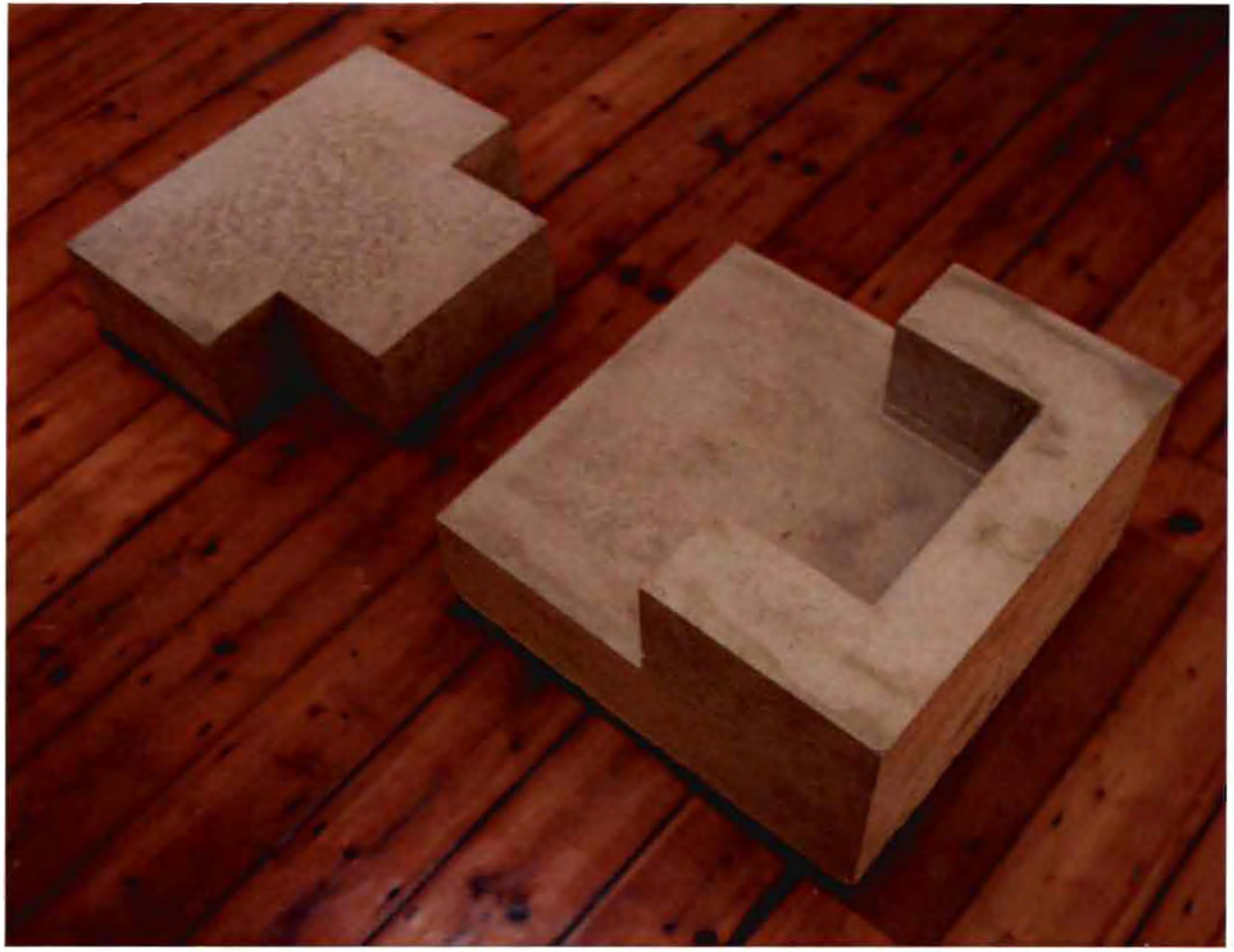
The shape I cast contained two identical recesses. I saw these recesses as storage spaces, titled at such an angle as to render them incapable of functional usage. I angled the blocks in such a manner that the base would just be heavy enough to counterbalance the forward-leaning upper part. They are on the cusp of verticality.

The mass and weight of the solid concrete implies stability and permanence. By tilting these structures, this stability is undercut allowing the possibility of collapse. Furthermore, dialogue between the two tilted shelves is created by their position towards each other. They support each other, not physically, but they act as buffers should either structure tilt forward. By facing each other the recesses are also partly hidden from view. This negates the promise of functional value.

Steps. 2007. Reinforced Concrete.

The construction of *Steps* involved the use of a reusable mould from which multiple casts were made. The name *Steps* is deceptive. It resembles three steps that have been displaced or cut out from a larger pre-cast staircase. Although this seems to be their origin, the steps do not function, or indeed look exactly like those one would find on a stairwell. Both the vertical rises and the horizontal surfaces are of the same length. As a result there is no signifier as to which side rises and which side descends. In fact, the depth of the individual steps would not allow one to place ones foot comfortably in order to traverse the structure.

Steps serve as an architectonic sculpture, a sampler of a functional architectural feature. But instead of replicating a functional object this sculpture cannot be utilised, allowing it only to be read as a visual artifice. The placement of the *Steps* is vital to a reading of the object. By leaning it against a wall the form links the floor to the wall, and takes environmental space into consideration. This function highlights architectural features of the surrounding space.



Formwork no.12 (Block and Slot). 2007. Reinforced Concrete.

The original design behind this work was two steps, with the central part of the upper step removed to compromise its possible function. While constructing the mould I became interested in the negative space around the mould, not on the inside, but around the closed, exterior part of it. The shape created by the mould was a polyhedron, and once I had cast the structure and removed the mould, I again became affected by the reification created by the structure. The shape of the second structure was thus generated by the first, larger one.

I subsequently cast the smaller structure, which fits perfectly into the larger one. When placed apart, the viewer's perception of the two structures generates the idea that the smaller structure 'belongs' to the larger one. This perception can be altered according to where the objects are placed in relation to each other.

The dialogues created by the two are that they fit together. The recess of the one and the protruding arm of the other, further enhances the perception that they are constructed specifically for each other. The opposite spaces of these structures imply a male-female dichotomy. Although the creation of such a reading was unintentional, it remains open to interpretation by the individual viewer.

Carriages. 2007-2008. Reinforced Concrete.

The form and structure of *Carriages* evolved out of a series of drawings. The first object was designed through a process in which I examined the aesthetic qualities of a partly curved block-like shape with an imbedded recession. Only once I had cast the second object did the spatial functioning of the pair become apparent.

The second object has a larger recession; it extends to the end of the curve while also receding deeper into the form. These sculptures are activated by placing them in proximity to each other, allowing the viewer to generate spatial information regarding the geometry of the objects, and the differences between them.

Formwork no.15 (After Judd). 2007. Reinforced Concrete.

Formwork no. 15 is an L-shaped concrete block, with the longer side flat and the short side upright. A semicircular furrow is recessed along the length of the horizontal plane, extending through the vertical protrusion and opening up into a round hole on the other side. From the back of the sculpture only the perfectly round recess is visible. From the front or the side of the sculpture one can see the furrow disappearing into the concrete.

Climb. 2008. Reinforced Concrete.

Climb is a set of three step-like ledges that rise up a concrete block. Although the reference to a stair is clearly evident, the steps are higher than they are deep, allowing the possibility that it could have been tilted on its back. The back side of the block is tilted outwards, and presents the viewer with a simple mass. Despite its apparent weight and solidness, the structure is undercut by vulnerability presented by the forces of balance and gravity.

The steps invite the viewer to access the work by ascending the levels. The desire for such an action is denied by the tilt of the structure. Any weight applied to the structure from above could result in its collapse. Yet, as the structure is presented to the viewer, it is completely self supporting.

Climb once again refers to a verb as well as a description, and is in reference to the kinaesthetic response made possible for the viewer. The work is however not solely reliant on such a response, and the Gestalt of the form must also be noted. The work activates the space around it as the viewer becomes more aware of the negative space created by the work. Here the architectural space of the room is highlighted and environmental factors taken into consideration.

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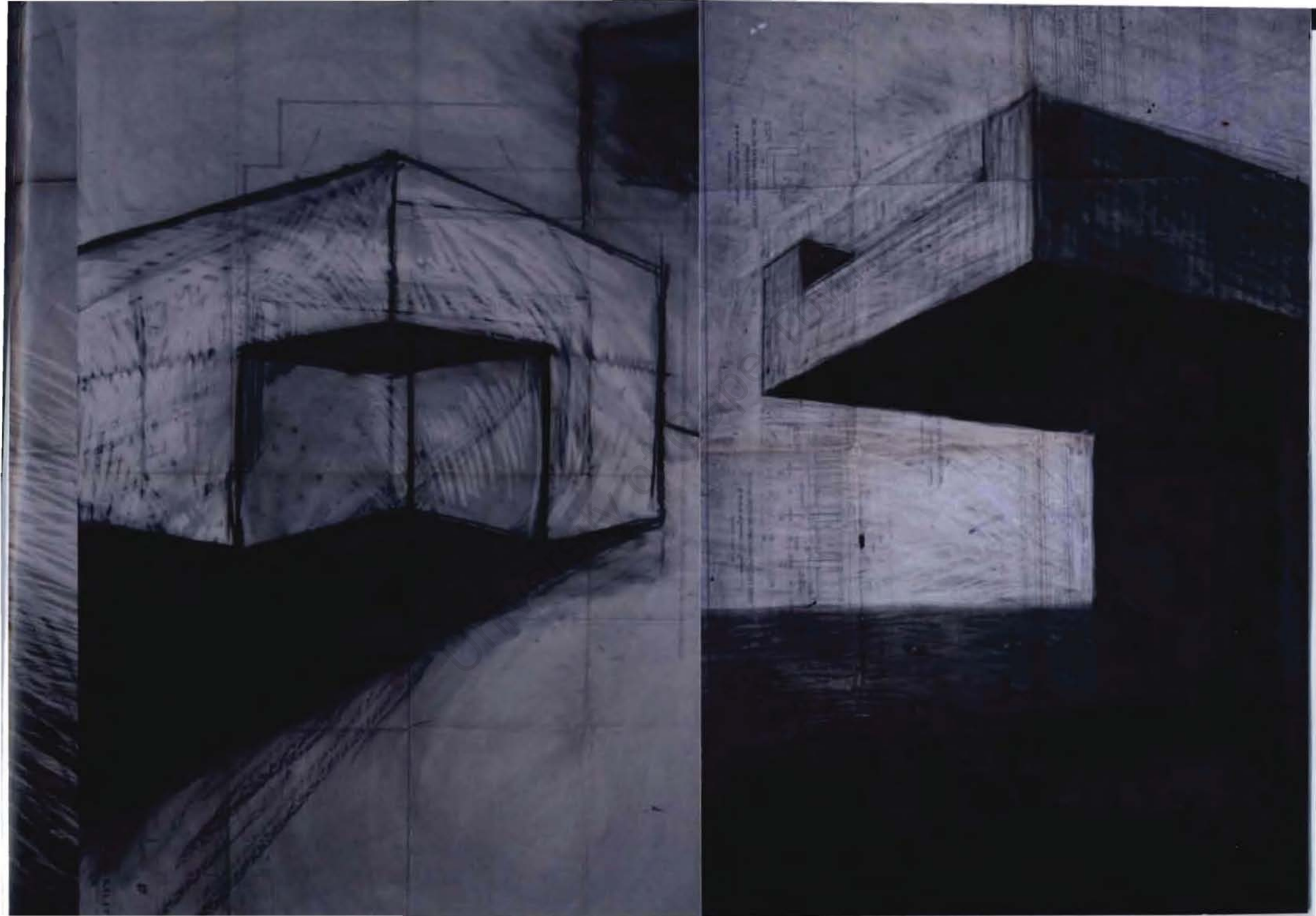

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