

MAREK POCZĄTKO*

INVISIBLE CITY'S CONCRETE STRUCTURES

BETONOWE STRUKTURY NIEWIDZIALNEGO MIASTA

Abstract

Concrete used at the interface between architecture and art brings surprising solutions. In Michael Heizer's work, it becomes a material for the artistic transformation of the city. In the constructed utopian space, the sculptor ponders on the structure and building material – natural and artificial. Like antique megaliths, the concrete forms are witness to what was or a prelude to what is to come. However, their geometrical harmony cannot be referred to the present. The carefully concealed concrete *City* lies undiscovered in the wilderness.

Keywords: concrete structure, Heizer, sculpture, concrete

Streszczenie

Beton stosowany na styku architektury i sztuki przynosi zaskakujące rozwiązania. W twórczości Michaela Heizera staje się tworzywem do artystycznej transformacji miasta. W zbudowanej utopijnej przestrzeni prowadzi rozważania na temat struktury i budulca – naturalnego i sztucznego. Betonowe formy niczym antyczne megality są świadkiem tego, co było lub zapowiedzią tego co ma nadejść. Nie sposób jednak ich geometrycznej harmonii odnieść to terażniejszości. Pilnie skrywane betonowe *Miasto* tkwi na pustkowiu nieodkryte.

Słowa kluczowe: betonowa struktura, Heizer, rzeźba, beton

Concrete as a material in architecture is self-evident – but it also finds its application in sculpture. These two related domains complement and permeate each other. In both – a three-dimensional object is almost always the end result of the creative process. Likewise matter – the building material is sometimes the same. Hence, in the pretext of creating architecture, sculpture has its permanent place. In the twentieth century, its figurative nature was replaced by abstraction, making the relationship of both domains even more literal. *Sculptural-architectural activities seem to determine one of the main directions in the contemporary dialogue of arts. It is not the eighteenth-century connection between architecture, poetry, rhetoric and painting or the nineteenth-century postulate of synesthesia and the synthesis of*

* Ph.D. Arch. Marek Początko, Institute of Architectural Design, Faculty of Architecture, Cracow University of Technology.

arts, but the blurring of boundaries between sculpture and architecture that has become one of the most important problems of contemporary affinities – as seen in the new definitions of architectural sculpture, sculpture in architecture, the concept of installation, site specificity or public art¹.

1. Michael Heizer's Invisible City

American artist Michael Heizer has been building the *City* in Nevada, USA since 1972. The site was chosen carefully, from airplane windows, in a virgin area away from the buildings and curiosity of random viewers. The surrounding natural landscape constitutes both the backdrop and the building material, the material in which the sculptor carves his unique monument.

Heizer was born to a family of geologists and archeologists. Therefore, he creates his works “in” and “from” earth, conducts extensive excavations and forms wide terraces in arrangements resembling those from an opencast mine or quarry.

The artist also erects concrete walls of the structures of inscrutable functions. He only explains that he creates the *City* while the *complexes* constitute a geometric puzzle. A few lucky ones saw a fragment – a complex in the *City* called 45° , 90° , 180° . This is the most complex arrangement, although it is hard to deny its logic. It is a composition of triangular and square solids or walls starting with the form of spatial wedges arranged linearly in a defined axial order. Next, the four triangular walls go into the void between these triangular boxes, and then the composition disperses in the form of square plates laid on the floor. The whole is closed with a final wall which is the backrest of the next square plates laid at an angle of 45 degrees, vertically and horizontally recreating the angles described in the name of the work. All elements poured out of concrete give a clear indication – form and space are most important here. Solids grow from a concrete flat floor. We do not know whether it is a sculpture or a structure of some function. Perhaps it is only a ghost, apparition of the shapes of buildings in the city of special composition. It is definitely possible to determine the “front and back”, the distinct beginning and end of this *complex* – the clarity of the composition, which has been blurred in contemporary urbanism.

Surrounded by an artificially formed area with a smooth surface, shaped as escarpments running around the complex, Heizer's work is majestic, monumental and at the same time distant from the traditional definition of sculpture and architecture. In its proportions it resembles an ancient circus arena or a race track with a stage in the middle. The whole *City* has its dynamic direction, its linear composition set in a particular direction. Perhaps the *architectural structure is pure language, and architecture is the endless manipulation, grammar and syntax of architectural characters. [...] Forms do not follow the function, but refer to other forms, and functions refer to symbols. Ultimately, architecture breaks free from reality completely. Form does not need external excuses*². The shapes of the erected structures with concrete walls are based on the geometry of basic bodies.

¹ G. Świtek, *Gry sztuki z architekturą. Nowoczesne powinowactwa i współczesne integracje*, Toruń 2013, p. 266.

² C. Wąs, *Architektura a dekonstrukcja. Przypadek Petera Eisenmana i Bernarda Tschumiego*, Wrocław 2015, p. 169.

Another complex called *Complex I* is a prism of land bounded by concrete walls – two reinforced concrete trapezoids filled with local soil on both transverse ends. The arrangement is complemented by linear elements – walls without function, sculptural planes suspended in space forming the abstract element of the *complex*. And all of this is located in the vastitude of the desert. The form of this structure may suggest antique pyramids or burial temples. Heizer mentions the ruined heritage and demolished cities of the Aztecs.

The power of an open deserted space and strong concrete geometric creations strikes in the constructed *City*. It is not known whether the *City* and its *complexes* are created according to a specific plan, a long-term project divided into stages or are a temporary and momentary product of the artist's imagination. The sculptor is entirely preoccupied with the titanic work, which condemns him to solitary loneliness. Perhaps this is a deliberate choice, escape into the world of geometric utopia, giving relief from the everyday urban chaos. It is certainly an escape from the viewer, remaining an invisible metropolis.

The other fragments of Heizer's *City* are hollowed out in the rock and has no external form on the ground but below its level. It takes the form of tunnels arranged in an astonishing abstract geometric relation resembling shapes from the paintings of Constructivists in the twentieth century. The tunnels are longitudinal rectangles, circles, broken lines, arched lines. The artist moves the same openings in different scales into the gallery space, providing visitors with fragments of that which is happening in the deserts of Nevada.

He constructs the buildings from concrete and local soil. Perhaps he places an equality sign between them – a stone made by nature and a stone created by man. In addition, in his other works, he transports and assembles massive boulders in public places and galleries. He places or hangs them in positions that negate the laws of gravity so that a mass audience can commune with the art of earth. On the other hand, it is impossible to guess who the recipient of the *City* is, since it does not have residents, it even shuns them, and the journey to visit and admire the work is difficult – the artist hides the location of his *complexes*; perhaps the additional significance of the work is due to the fact that the area is surrounded by air force base and bomb test site. We do not know whether this city has already been abandoned or has not been inhabited yet. Does it announce the end or start of something new? Is it a witness of a distant lost civilization or a proclamation of something that awaits us? The concrete walls resemble antique megaliths³, which as original forms in prehistory meant the presence of human culture in the form of primitive monuments. The *City* may be a contemporary interpretation of Stonehenge's megalithic circle or the forgotten form of menhirs, mounds, tombs and kurgans.

Perhaps they are an *architectural fantasy*⁴ about a city that is gone, had never existed or will never do. An ideal geometry governs the composition, proportions, shapes, solid texture and colour of the concrete building material. The work explodes with the great effort of the sculptor and his assistants, the artistic and technical effort expressed in the metres of hollow

³ *Megaliths mean literally: great stones (from Greek: megas – great, lithos – stone). Great stones in architecture have been found in different cultures of the world... By megaliths, I understand the intertribal and intercultural architectural style, being the expression of the universalist goehel religion of the ancestors and the Great Mother's worship, manifested in certain monumental, simple and raw structures, mainly burial but also temple and ceremonial ones, which consist in characteristic stone and stone-earth structures.*, [quoted after:] Z. Krzak, *Megality Europy*, PWN, Warszawa 1994, p. 11.

⁴ Retrieved at <http://www.artysta.pl/artykuly/pokaz/double,negative,sztuka,ziemi,michaela,heizera-533>.



- III. 1. Michael Heizer, *45°, 90°, 180° complex of City*, Nevada, Garden Valley, 1972–...
source: <http://www.latimes.com/la-oe-michael-heizer-city-20150517-pg-photogallery.html>
- III. 2. Michael Heizer, *Complex I of City*, Nevada, Garden Valley, 1972–...
source: <http://www.latimes.com/la-oe-michael-heizer-city-20150517-pg-photogallery.html>

rock and the volume of built-in concrete. Heizer has created the *City* from rocks, sand and reinforced concrete, which he extracts and mixes in place. He forms his art in the structure of earth, in nature. Thus, the construction of the complex with the use of concrete should be considered a special choice – having many natural materials like stone or wood to choose from, the artist selects concrete as a durable and precious material.

To this day, the carefully hidden concrete *City* lies undiscovered in the wilderness and its unfinished transformation awaits Heizer's next sculptures. The artist has not completed his work fully mainly due to the need to involve large financial resources for the implementation of such a large and difficult work. However, he managed to complete a slightly different sculpture. In his work entitled *Levitated Mass*, Heizer transported a mighty rock a long distance, mounted it over a hollow concrete tunnel without a roof in a manner corresponding to the name – levitating just above the spectators' heads. The involvement of technical and financial means is also enormous in this case. This confirms that *Michael Heizer along with Robert Smithson and Walter De Maria made totemic outdoor sculptures, often in the majestic wastelands of the American West*⁵. The art once again crossed the artistic, financial and technical boundaries.

2. Non-existent sculpture

Carel Visser, a Dutch sculptor, designed and built a remarkable monument in 1966 – a spatial concrete sculpture composed of rectangular slender blocks creating a very dynamic composition. The artistic installation in The Hague must have had a strong influence on the audience – the horizontal and vertical long walls connected with small tangential planes in relation to the mass of sustained solids. Hence, it was possible to have the impression of levitating surfaces remaining in a geometric relation defined by the right angle. The material did not remain indifferent to the form of the work – not only did it allow for the construction of a complex spatial composition, structurally resisting gravitational forces, but it also determined the colour and texture. Today, this concrete work of art exists in the city space only in photographs.

The artist created many works exploring the basic geometry of simple bodies, often using reinforced concrete along with bronze and steel. Just as the non-existent sculpture, they may remain unnoticed as invisible elements in the city. Even due to their scale. This applies, for instance, to a spatial sculpture in front of the entrance to Schiphol Airport in Amsterdam; composed of horizontally stacked concrete slabs shifted against each other, it creates a static composition of elementary geometric bodies.

A sculpture similar in character to the above, called *Salami*, was erected by Visser on the front of the Hall at the University of Delft in 1966. Concrete slabs stacked on top of each other form a geometric puzzle connected with a longitudinal element with an extensive square base. The sculpture constitutes merely an accent against the background of the expressive brutalist construction of the university's auditorium. Both works harmonize with and complement the urban composition of the campus. The sculptor refers to the inspiration

⁵ D. Goodyear, *A Monument to Outlast Humanity*, retrieved at <http://www.newyorker.com/magazine/2016/08/29/michael-heizers-city>.



III. 3. Carel Visser, *Reinforced Concrete Sculpture*, Hague, 1966
source: <https://oss.adm.ntu.edu.sg/a160121/?s=rectilinear+forms>

of the auditorium building being erected at that time, where the exposed concrete determines the architectural character (which also applies to the sculpture). The auditorium building built between 1959 and 1966 designed by Dutch architects from the Van den Broek & Bakema studio⁶ is an excellent example of a building from the period of flourishing and full approval of concrete architecture. The body of the building extended along the long side exhibits significant overhanging of the auditorium rooms enhanced by visible reinforced concrete elements. Additionally, the roof broken in the central part elevates both final elements upwards. The building with a small number of windows, virtually invisible from a human perspective, on the one side consists of the lower and upper part in the form of futuristic shells, surrounded by a balcony in the shape of a platform with external stairs. The extended part on the other side took on monumental features – by emphasizing the vertical elements of the concrete structure. One can see the symbiosis of the building of great architectural scale and the sculptural work of art against its background.

One should probably agree with the thesis that Visser was *a master of minimalism who could turn plain steel sheets and blocks of metal or concrete into powerful and beautiful shapes of great elegance*⁷. It is not without significance that he had studied architecture and art, specialising in sculpture. The abstract spatial geometry accompanies the artist in his creative work permanently. Searching for the transmutation of elemental solids and their mutual relations produce works that are characteristic and intriguing even because of their architectural character.

3. Oteiza's open and closed space

While looking for the possibilities of the transformation of concrete in art in the context of sculpture, one should refer to the Spanish artist Jorge Oteiza. His works, like Visser's, evolved from figurative anthropological representations to abstractions of geometrical space, thus approaching architecture. The sculptures were made of such materials as stone, wood, glass, metal and sometimes concrete. His works from the later period concerned abstract research on the form, often concentrated in the shapes of a circle and a sphere, a square and a cube, depicting their prototype and negative. The quest for the essence of emptiness in the space of sculpture in the case of Oteiza translates into philosophical and experimental abstraction. The artist plays the game, tries to take away fragments of the walls and internal structure so as not to lose the essence and readability of the original form. He looks for the boundaries between the separation, enclosure or restriction of the emptiness on the border of total emptiness – until the interior and exterior of the original solid become blurred. He sometimes assemble the broken elements into a decomposed form. These extraordinary geometric transformations often find their materialization in concrete. Owing to this, they achieve durability and dimensions that facilitate the exhibition of the works in the city space.

The current headquarters of the museum of Jorge Oteiza's works in Alzuza, Navvara in Spain is certainly worthy of attention. The building was constructed according to

⁶ Retrieved at <http://architectuur.com/architecture/aula-technical-university-delft>

⁷ Retrieved at <http://www.independent.co.uk/news/people/carel-visser-sculptor-hailed-as-a-master-of-minimalism-who-turned-metal-and-concrete-into-elegant-10086228.html>.



Ill. 4, 5. Donald Judd, *Untitled*, 1980–1984, The Chinati Foundation, Marfa, Teksas
source: <http://www.fallow.com.au/journal/blog/2015/03/25/marfa-by-donald-judd/>

Francisco Sáenz de Oiza's design as a structure in the existing traditional compact housing development built of stone. The building is a partial addition to the artist's house. The new wing of the museum is a structure composed of cuboids constructed in a monolithic technology. Concrete formed in formwork gained perfectly designed regular splits and tie holes. Its red colour gives character, corresponding with warm colour of the adjacent building's stone. The lower part, in turn, at the base of the slope and the building, was coloured black – which colouristically refers to three expressive solids of the roof skylights.

Through the simplicity of geometry, the author strove for harmony and balance, in the intention of erecting a non-monumental structure as it is to house Oteiza's monumental works in its interior. This concept was conceived from the idea or principle of the "inverted traditional temple", where natural light reaches the most important parts of the building (the nave)⁸. Here, the side lighting is supposed to keep the interior in the mysterious semi-dark, as was the case with the tunnel where Oteiza worked. Therefore, the central high part is connected with additional rooms containing Oteiza's experimental sculptures and the whole is illuminated by the upper skylights.

In spite of its distinct concrete form, the structure seems to exist in harmony with the architectural and natural surroundings. The traditional stone of the old buildings is in harmony with modern technological coloured concrete. The solids shaping the museum building refer with their scale to Alzuza's building development, becoming part of the slope in the surrounding area. Carefully planned and made, the coloured fair-faced concrete forms the architecture-sculpture. *In Bertoni's interpretation, some of the architectural works constitute a "prelude" to minimalism in sculpture, especially those using simple geometric bodies or emphasizing the meaning of emptiness and the truth of material. An example is Bertoni's juxtaposition of the Salk Institute for Biological Studies (La Jolla, Calif., 1959–1965) designed by Louis Kahn and 15 Untitled Works in Concrete designed by Donald Judd, the work done at the area of The Chinati Foundation (Marfa, Teksas, 1980–1984)*⁹.

4. Donald Judd's concrete emptiness

Donald Judd is one of the artists who significantly influenced the understanding of the 20th century art. His minimalist compositions got very close to modern architecture. He created, among others, the abovementioned spatial installation – an economical composition of fifteen concrete blocks arranged in a rectangular layout. The work was created from 1980 to 1984 without a name for the Chinati Foundation in Marfa, Texas. 15 units of the same rectangular concrete "boxes" of 2.5 x 2.5 x 5 metres arranged in different configurations were assembled at the museum's property. The precisely molded reinforced concrete in 25 cm thick walls closes the rectangular space on four sides while remaining open at the base or two opposite longitudinal sides. The frames crop the surrounding landscape, remaining as if its natural part. The units are to the same extent dependent on the environment and themselves.

⁸ Retrieved at <http://www.museoteiza.org/el-edificio/>

⁹ G. Świtek, *Gry sztuki z architekturą. Nowoczesne powinowactwa i współczesne integracje*, Toruń 2013, p. 266.

They create a logical picture of the artist's analysis of their form and fenced space. Those repetitive elements, arranged each time in different configurations like the bottles from Giorgio Morandi's paintings, gave different views, built the space of the elements, and the space between them.

Judd's concrete solids have a scale that can be applied to human dimensions. They bring to mind the model objectives designed by Le Corbusier based on *Modulor*. The sculpture expresses its "architectural character" in matter and its colour, dimensions and the context of the space created in the landscape.

The artist blurs the line between sculpture and architecture. This is an ascetic limitation of space with the use of architectural-construction measures. The surrounding landscape co-creates the work and the concrete frames provoke the audience with their scale – to enter the interior and reference this art to the daily scale of the space in which they live. One can agree with the assertion that *in this work, he has achieved a full integration of form and space, art and environment*¹⁰.

*According to Bertoni, minimalism in sculpture, juxtaposed with architectural examples, loses its pioneering position as an experimental trend in the 20th century art. It should be noted, however, that the recognition of the importance of sculptural minimalism has contributed to determining the "most visible aspects" of minimalist architecture, such as the simplicity of form resulting from the assembly of geometric bodies, its "abstractness" combined with the operation of light and emptiness, the lack of ornamentation, presenting advantages of building material and the functional layout of space*¹¹.

It is known that Judd sought to "alienate" his art, break all existing cultural contexts, eliminate the connotation of the past. Like many artists of this period, he believed that objective works of art exist simply for their own sake. They express faith in geometry remaining in relation to the viewer. Likewise Heizer, who creates the *City* without an architectural and social context – a useless expanse of space remaining hidden. In this context, it is astonishing that the *City* was created – the work for nobody and the fact of investing enormous resources of people ready to pay for art that cannot be collected¹². *Heizer undoubtedly wanted to break with the concept of sculpture in the European tradition of Rodinai Brancusi – as refined objects; ... Heizer criticized the traditional monument as something that occupies a certain space – preferring the work that seizes the viewer, causing movement to the inside of the work. The artist also emphasized his attachment to the past and religious experience*¹³. Concrete structures remain an element of the invisible *City*. They undeniably prove that architecture and sculpture are still interrelated and that the boundary between them does not exist.

¹⁰ Retrieved at http://www.theartstory.org/artist-judd-donald-artworks.htm#pnt_6.

¹¹ G. Świtek, *Gry sztuki z architekturą. Nowoczesne powinowactwa i współczesne integracje*, Toruń 2013, p. 266.

¹² A. Markowska, *Pięć dolów w ziemi spore wykopki*, QuartNo. 1(7)/2008, p. 82.

¹³ A. Markowska, *Pięć dolów w ziemi spore wykopki*, QuartNo. 1(7)/2008, p. 83.

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