

Oswald Mathias Ungers and Sol LeWitt: Variations

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*One of the fundamentals of Oswald Mathias Ungers work is the definition of a new unity between art and architecture. What this investigation is focused on is the identification of the intersection point between art and architecture, considering the project for the Entrance to the Kaiserthermen in Trier (2003-2007) as case study, revealing the system of theoretical, methodological and compositional correspondences. Plastic art is Ungers' main interlocutor: one of the author's most important references is Sol LeWitt (1928-2007), an artist he admired and collected. Setting the work of Oswald Mathias Unger and Sol LeWitt side by side, offers the opportunity to underline the shared interpretation that the two authors have of the world of forms postulated by Henri Focillon (1881-1943) in *Life of Forms*, according to which form, autonomous with respect to time and place, has its own universe, governed by its own laws, space and matter. According to these premises, we propose to read Trier's building through the instruments of art, following the hypothesis that in this project art embodies a creative and positive component in the definition of architecture, a cultural stimulus that guides the author in the design process.*

Introduction

It was 1999 when Ungers, in the introduction to the catalogue of his exhibition *Zwischenräume* held in Düsseldorf, exhibited his interpretation of the relationship between art and architecture. In a world made of palimpsests he sees art and architecture that support and overlap each other: “Art lies in architecture and in art there are elements of architecture. Layer by layer, one approaches the other. Between the spaces of architecture, art becomes visible and the space of architecture is born from art”¹. In these years Ungers’ visions on architecture, matured on the basis of reflections dating back to the eighties², are aimed at building a compositional process in which art is an active component in the project. It is a process that is structured by tangencies, *interstitial spaces* and variations in a system of relationships that combines art and architecture. A few years later he realized his last project for

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1. Ungers, O. M. (1999) *Zwischenräume*, in A. Sieber - Albers, O.M. Ungers, (ed), *O. M. Ungers: Zwischenräume*. Hatje Cantz Verlag, Ostfildern-Ruit, 7

2. From the beginning of the 1980s Ungers expressed his conception of architecture as art, especially when in 1981 he staged the exhibition *Westkunst* in which he began his investigation of the relationship between art and architecture. Since then, Ungers has concentrated on a series of exhibitions in which this theme plays an important role: in 1985 he exhibited at the Kunstverein in Cologne, in 1987 he took part in Kassel’s *documenta 8* and organizes the Tilmann Buddensieg’s exhibition in *Berlin 1900-1933. Architektur und Design*. In 1990 he exhibited in the Galerie Max Hetzler in Cologne a series of sculptures with the theme *Kubus*, with Günther Förg (1952)

Trier³, the entrance to the Kaiserthermen (2003-2007) which represents the synthesis between art and architecture translated into a built building. The silent character of the opera, its calibrated dimension and the clear formal structure make the reading of this last project by the author an opportunity to identify the relationships that link the structure of the Ungers building to the experiences of contemporary art.

These considerations on the system of mechanisms that is substantiated by the combination of art and architecture in the work of Oswald Mathias Ungers founded the premises in the deep interest that the author has for art, an obvious interest if you look at his personal art collection, started in the early 1950s⁴. It is a collection to be interpreted as an idea and the explanation of this idea must be sought in the relationship that exists between the works of art owned by Ungers and his architecture, a relationship that feeds on analogies, similarities and overlaps, configuring a system similar to a palimpsest. It is through the study of the elements that make up this collection that it is possible to document the affinities between Ungers and art⁵: the works are the basis of its architecture. Ungers sees in this interweaving with contemporary art the foundation on which to structure a new unity between art and architecture. The project for Trier allows to understand the way in which art and architecture are based in the project, through not only a reading of the formal affinities between the structure of the project and the work of art, but also through a recognition of theoretical correspondences, methodological and compositive underlying the work of architecture and the work of art. According to these premises, it is proposed to read the building of Trier through the tools of art, according to the hypothesis that in this project art embodies a *creative* and *positive* component in the definition of architecture, a cultural stimulus that guides the author in the design process.

In 2007 Ungers completed the construction of the entrance building to the Kaiserthermen, a project that defines the limit of the archaeological space in a part of the city characterized by a large urban green void: the park of the Prince's Palace. The project consists of a single element which is a linear, regular and modular building. This one is a long block that defines the northern boundary of the archaeological area of the Kaiserthermen, returning the value of the size of the Roman monument, while integrating the archaeological complex in the current urban fabric⁶.

What this survey deals with is the identification of the point of contact between art and architecture, considering as the main object of the speech the project for the entrance to the Kaiserthermen of Trier. The compositional principle of transformation,

3. In this city, which the author defines as his adopted city, Ungers has the opportunity to build three projects over about thirty years of activity. Between 1988 and 1996 he experimented with the theme of covering excavations in which he was confronted with the presence of the history and the current configuration of the city. His project experience in Trier began in 1981, with the installation of the Konstantinplatz, finished in 1983, a project to recomposition the archaeological memory of the place

4. D'Alessandro, M. (October 2022) *OMU at Belvederestrasse. Self-portrait in the studio*, in *Athens Journal of Architecture* - Volume 8, Issue 4, 405-438.

5. Lepik, A. (ed) (2006): *O. M. Ungers. Cosmos of Architecture*. Ostfildern: Hatje Cantz.

6. On Treviri's project: D'Alessandro, M. (2015) *Oswald Mathias Ungers a Treviri. Due musei*, Bologna, Bononia University Press.

which is at the basis of the architectural choices of the project and which is true in the construction of a morphological sequence, takes on unexpected connotations and deeper meanings if observed through the tools of art. In this project, the study of form expresses all possible variations and combinations of the *cube* shape. Plastic art becomes Ungers' main interlocutor: one of the most important references for the author is Sol LeWitt (1928-2007), an artist admired and collected by OMU.

After tracing a brief review of the contributions on the subject in the second part *Literature Review*, in the third part of the contribution, he entitled *Architecture as Transformation: the Entrance to the Kaiserthermen in Trier*, the aim is to describe the significance of the principle of transformation in the cultural context of Ungers' architecture and, specifically, in the project for the new entrance to the Kaiserthermen in Trier. In the fourth part, *The research about analogy between art and architecture*, the contribution traces the system of formal, compositional and theoretical contamination between Ungers's project and LeWitt's *Variations of Incomplete Open Cubes*. In Conclusions, the aspects that make Ungers and LeWitt's research on form parallel are highlighted, offering the tools for an unprecedented reading of the two figures through the critical comparison between the two works considered as case studies.

Literature Review

Ungers' architectural endeavors have captured the attention of critics who have delved into his work, both in its physical form and its conceptual underpinnings, over the past few decades. This growing interest has led to numerous publications, both in Germany and internationally, that aim to explore the value of Ungers' architecture from diverse perspectives. These publications encompass monographs, focused studies on specific built projects, and critical essays featured in esteemed European architectural magazines, offering a comprehensive analysis of the wide range of buildings conceived by the architect. This extensive research encompasses various themes central to OMU's architectural poetics. Critics have scrutinized his cultural and architectural education, his contemplations on urban design and the city, the theoretical framework underlying his architecture, as well as its form, language, and content. These aspects have been dissected, examined, and interpreted by scholars and critics, contributing to a nuanced understanding of Ungers' architectural exploration⁷. The investigation into the relationship between art and architecture in Ungers' oeuvre has been particularly noteworthy. It has been explored through insightful contributions that shed light on his personal collection of artworks and rare books. Notable essays include "Eine Privatbibliothek in Köln-Müngersdorf"⁸

7. Jasper Cepl's biography not only accomplishes the enormous feat of completing the bibliography on the author, but also reveals another important point of view from which to view the figure of Ungers. Cepl, J. (2007), *Oswald Mathias Ungers. Eine intellektuelle Biographie*, Cologne, Walther König.

8. Strodthoff, W. (April 1991) *Eine Privatbibliothek in Köln-Müngersdorf*, *Bauwelt*, no. 16, 830-833.

(1991), "The Visit to the Architect's House"⁹ (2006), "Ungers and His Books"¹⁰ (2006), "The Collection of Architectural Models"¹¹ (2006), and the catalog "O. M. Ungers: Kosmos der Architektur"¹² (2006), which presented the entirety of the works from Ungers' collection during a retrospective exhibition at the Neue National Galerie in Berlin in 2006. Furthermore, a series of publications have explored the theme of collaboration between architects and artists in the composition of architectural projects. Notable examples include the catalog "Oswald Mathias Ungers, Gerhard Richter, Sol LeWitt"¹³ (1991) focusing on the Hypo-Bank project in Düsseldorf (1988), the essay "Dach des Wissens"¹⁴ (1992) discussing the Badische Landesbibliothek in Karlsruhe (1980-1991), and the essay "Kunst"¹⁵ (1995) examining the project for the German Ambassador's Residence in Washington D.C. (1982-1995). In Martin Kieren's essay, "Konstellationen-Monologe"¹⁶ (2009), an intriguing reflection is presented on the surrealist elements within Ungers' work, adding another layer of interpretation to his architectural endeavors¹⁷.

9. Tasch, S. (2006) *The Visit to the Architect's House. The Art Collection of Oswald Mathias Ungers*, in A. Lepik (ed), *O. M. Ungers. Cosmos of Architecture*, Ostfildern, Hatje Cantz, 18-29.

10. Cepl, J. (2006) *Ungers and His Books. The library as a Collection of Ideas*, in A. Lepik (ed), *O. M. Ungers. Cosmos of Architecture*, Ostfildern, Hatje Cantz, 30-39.

11. Elser, O. (2006) *The Collection of Architectural Models, Based on His Own and Historical Designs*, in A. Lepik (ed), *O. M. Ungers. Cosmos of Architecture*, Ostfildern, Hatje Cantz, 40-53.

12. Ungers, O.M. (2006) *Ungers Archive für Architekturwissenschaft, Kosmos der Architektur*, Die Qualitaner, Düsseldorf

13. Hegewisch, K. (1991) *Oswald Mathias Ungers, Gerhard Richter, Sol LeWitt*, Hypobank, Düsseldorf.

14. Smolik, N. (1992) *Dach des Wissens*, in *Die Badische Landesbibliothek Karlsruhe. Eine Projekt der Staatlichen Hochbauverwaltung*, ed. Finanzministerium Baden-Württemberg, Stuttgart, Verlag Gerd Hatje, 52-61.

15. Ungers, S. (1995) *Kunst/Art*, in *Deutsche Botschaft Washington, Neubau der Residenz-German embassy Washington, the new residence*, Oswald Mathias Ungers (ed), Stuttgart, Gerd Hatje, 41-55.

16. Kieren, M. (2009) *Konstellationen-Monologe. O. M. Ungers rationale Versuche, falschen Problemstellungen aus dem Weg zu gehen/Confì gurazioni-Monologhi. Rational attempts of O. M. Ungers to avoid a wrong formulation of the problems*, in *Die Idee der Stadt/Idea of the city*, in U. Schröder, Tübingen-Berlin, Ernst Wasmuth Verlag, 14-53.

17. On the relationship between art and architecture in Ungers' work, the author has published several contributions, including D'Alessandro, M. (2011) *O.M.Ungers: la sinestesia tra arte e architettura. Il progetto per le Kaiserthermen di Trier*, in *Il progetto di architettura fra didattica e ricerca*, C. D'Amato (ed), Bari, Polibapress/Arti grafiche Favia, 361-370; D'Alessandro, M. (2010) *Architettura come opera d'arte. Arte e architettura nell'opera di Oswald Mathias Ungers*, in A. Trentin (ed), *OMU/AR. Un laboratorio didattico*, Bologne, Clueb, 82-89.

Architecture as Transformation: the Entrance to the Kaiserthermen in Trier

The concept of transformation, closely linked to that of variation, metamorphosis and morphology, indicates, in general, a deep interest in the study of form in its modifications. This concept is present in the history of all disciplines, from art, literature and philosophy to architecture. Ungers looks at the design process as a morphological transformation, in which the questions of function, program and technique are placed in the background, while the importance of the shape of an element and its continuous transformation is highlighted. Ungers writes: "If, for example, we mean design, the design process, as pure technique, then the results will be pragmatic functionalism or mathematical formulas. If the design is exclusively the expression of psychological experiences and attempts, then only emotional values count, and design is a religious substitute. But if physical reality is conceptually understood and understood as an analogy of our imagination and this reality, then we will follow a morphological design concept and transform the facts into phenomena that like all real concepts can be extended or condensed. They can be seen as polarities that contradict or complement each other simultaneously and mutually, and that as pure concepts rest on themselves as a work of art. For this reason we can say that if we observe physical phenomena in the morphological sense as figures in their metamorphosis, then we are able to develop our knowledge even without machines and apparatuses. This imaginative process of thought finds application in all the intellectual and spiritual spheres of human activities even if the way of proceeding in the different spheres can be different. It is always the same fundamental process of the conceptualization of an independent reality, different and therefore never equal, through the multiple use of representations, images, metaphors, analogies, models, signs, symbols and allegories"¹⁸.

The transformation implies a mutation traced in relation to a previous condition, a antecedent representing the figure in relation to which the successive variations are determined. In this sense, the question of continuity is closely linked to transformation: that is, by changing the shape of an object, there is no interruption of meaning but a modification that takes into account the structure from which it moves, according to a continuous process. The transformation is therefore linked to the concept of morphology, defining the process that describes not so much what it *is* but *what it becomes*, thus identifying the wide range of possibilities of morphological transformations of the elements.

Ungers' approach to morphology translates into a design method for a series of alternatives, not interpreted as programmatic attempts or dictated by purely functional issues, but rather based on the infinite variety of transformation and metamorphosis of forms and elements. This meaning of morphological transformation, of obvious Goethean matrix, implies not only that there are myriad solutions to a problem but also, and above all, that the solution is included in a general process of transformation. This question, central to the author's work, implies a passage to a higher level of metaphorical meaning, through a reading of reality that does not focus on the form

18. Ungers, O. M. (1982) *Designing and Thinking in Images, Metaphors and Analogies*, in H. Hollein (ed), *MAN transFORMS: An International Exhibition on Aspects of Design*. New York: Cooper-Hewitt Museum, Smithsonian Institution, 96-113.

in which things appear but is directed towards the interpretation of the elements in a continuous process of modification. Ungers' work focuses on this theme in the initial part of his activity, since the sixties, when he outlined an architecture based on morphology and transformation. In this sense, architecture is an act of experimentation that seeks the idea of exploring the elements, investigating the possible variations and transformations of form, an architecture open to possible combinations of elements. This idea of mutation also derives from the study that Ungers dedicates to Villa Adriana, which he defines as the architecture of collective memory¹⁹: a compositional system intended as a moment of pure experimentation in which the types, Fragments of Hadrian's memory are continuously interpreted morphologically and transformed into new elements.

"I certainly remember a journey made explicitly to see Villa Adriana and nothing else. I spent two days in the villa and then I immediately returned to Germany and if I look at my work and in particular at the work of the sixties we see what was the influence of Villa Adriana and the classical architecture of Rome such as the space of the Pantheon"²⁰.

The author's interest in an architecture understood as a *continuum* of forms is a constant element of his entire work, although with characters and themes that over time have partially changed. Since the beginning of the Sixties Ungers began its path towards an architecture as *assembly* of forms. A great influence was certainly Villa Adriana that can be clearly traced in the projects for large urban complexes, elaborated in those years (Figure 1). Ungers writes: "Adriano's villa-idea, built in his ideal villa, is the starting point of the metric space towards the visionary space of coherent systems, from the concept of homology, concept of simplicity, towards the concept of morphology, concept of complexity. Therefore the villa represents a model of formation and transformation of thoughts, facts, objects or conditions as they occur in a continuum of time. Reality is seen in a morphological sense, physical phenomena perceived as "Gestalten" in their metamorphosis. This speculative process is basically an imaginative process of conceptualization, a different and unrelated reality through the use of images, analogies, symbols and metaphors"²¹.

19. Ungers, O.M. (1979), *L'architettura della memoria collettiva. L'infinito catalogo delle forme urbane*, in *Lotus international* n° 24, 4-11.

20. Trentin, A. (2004), *Oswald Mathias Ungers. A proposito dell'idea costruita. Conversazione con Annalisa Trentin*, in A. Trentin (ed), *Oswald Mathias Ungers: una scuola*, Milano, Electa, p. 53.

21. Ungers, O.M. (1979) *La memoria collettiva*, in *Lotus international*, n° 24, 6-9.

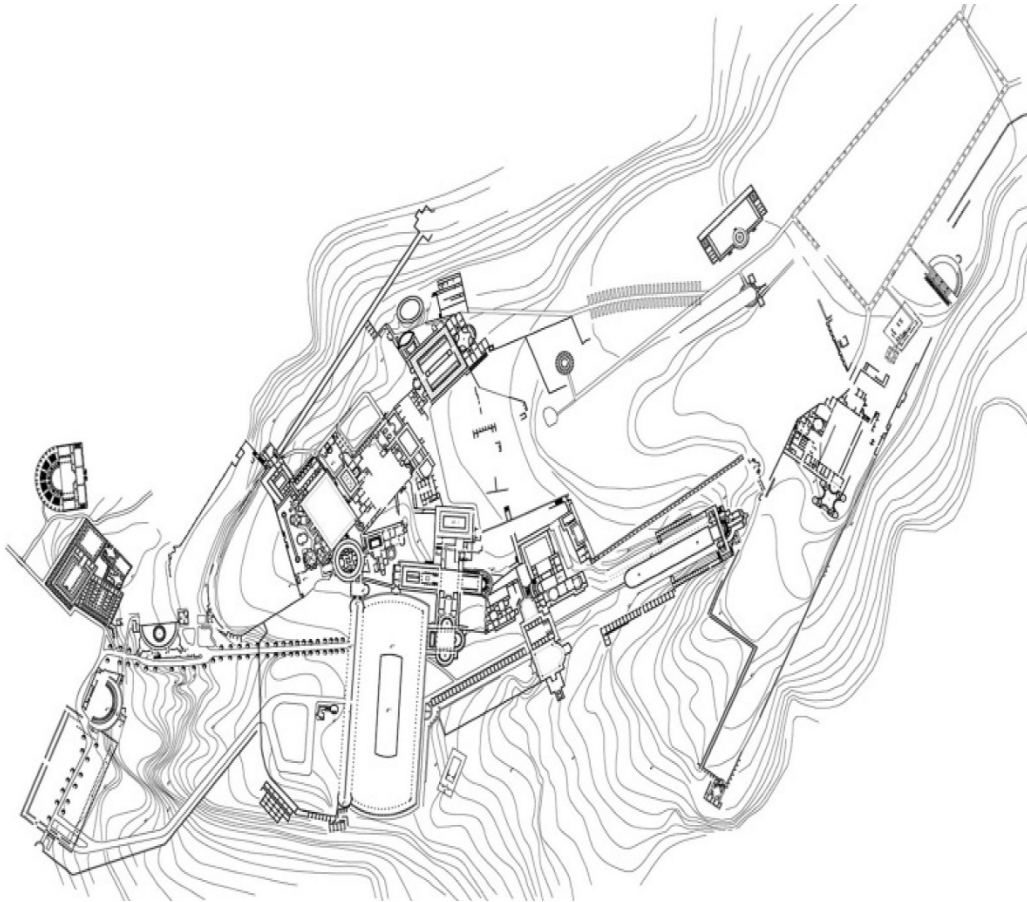


Figure 1. *Villa Adriana, General Plan*

Source: Martina D'Alessandro, 2021.

The plan of Villa Adriana is analyzed, broken down and reinvented in the plan for the home of the student TH Twente in Enschede (1964), in the project for the German Embassy in the Vatican (1965) and in the Prussian Heritage Museum in Berlin (1965). They are projects in which Ungers begins to investigate all possible variations and combinations of elements deriving from simple geometric shapes, composing the individual parts in a new morphological *montage*.

In the seventies the interest in morphology led the author to experiment with its potential as a criterion of composition for the architectural project. The concept on which the projects are based is that of variation in a morphological continuity. The scale of the project decreases compared to the examples of plans for "miniature cities" elaborated mainly in the previous decade, and Ungers proves to be able to experiment and control with great sensitivity the idea of transformation in the architectural project.

One of the unfinished projects that expresses these themes is the Morsbroich Castle Museum in Leverkusen (1976-1980). The Leverkusen building-enclosure bases the project idea on the linear and constant repetition of square modular elements, variously interpreted, which forms a long and articulated morphological sequence. The central theme is the idea of continuous wall interpreted and transformed according to a gradual morphological sequence: it starts from the closed

and compact module and reaches the maximum degree of transparency and integration with nature through pergolas and tree sequences. Starting from a single architectural element, the wall, all the possibilities, variations and expressive richness of the theme are explored in a unique system, in which each element maintains its own identity and recognizability. In the same period, Ungers concentrated his research on the principle of transformation as a compositional criterion, elaborating the project for a residential complex in Ritterstrasse in Marburg (1976). It takes as its central theme the single-family house: also in this case, as in the example of Leverkusen, the starting point is the identification of a simple modular structure, consisting of elementary units, sized according to a constant module of 6.5 meters side. The individual parts are transformed into a sequence that characterizes and differentiates each housing unit through the geometric division of volumes and spaces and the plastic modeling of the masses. This principle of transformation allows to deepen the research on the theme of the project experimenting with the different possible solutions, even within an overall unitary project. The research on transformation exploded in the eighties in a rich production of critical and theoretical texts that summarizes the author's propensity to observe reality through eyes that can see the process of becoming of things, beyond the outward appearances. The analog and metaphorical process now becomes the object of greatest interest for Ungers, a process that sets in motion and substantiates the entire design mechanism of its architecture. In the famous *Morphologie. City Metaphors*²² (1982) the visions of cities presented take on *another* meaning, morphologically transformed, thanks to this new metaphorical dimension, which educates the eye to *see architecturally*, to know how to recognize the structure, the space, the concept and the transformation behind things. In the same year Ungers published another text of great importance, *Architettura come tema*²³.

In this paper Ungers explains the need for architecture to be closely linked to a specific theme and comments on some of his projects classifying them with respect to the recurring themes of the project, such as transformation, assembly, incorporation, assimilation and imagination. From this retrospective reading of the author's work emerges precisely the ethical foundation of Ungers' architecture, his effort to root the architecture project to a theme, refer it to a theory and not make it float in the currents of fashions: the theme becomes the foundation of the project, the precedent of the project. The concept of transformation in this paper is investigated not so much as an idea underlying the meaning of architecture as rather as an architectural theme. Following a more careful reading and verification of the contents of the text in the projects selected in the book, however, a clarification must be made: the transformation is not reduced to being a specific project theme, because it is also applied in other assembly or incorporation projects, which therefore refer to different themes. The transformation, according to the hypotheses formulated here, must be read on a higher level of meaning, as a general compositional principle of making architecture, applicable to different contexts and themes.

22. Ungers, O. M. (1982), *Morphologie. City Metaphors*, Verlag der Buchhandlung Walter König, Colonia.

23. Ungers, O. M. (1982), *Architettura come tema*, Electa, Milano.

Experimenting with form in its deepest semiotic dimension highlights the difficulty that Ungers encounters in dealing with the more pragmatic aspects of reality. In addition to expressing a theme, the metamorphosis of form, the author must solve the issues related to function, utility, construction and economy. The obvious difficulties of translating literally the principles of form and its transformations in the project of architecture are partly eluded when between the eighties and nineties Ungers curates some exhibitions dedicated to his work, in which he manages to express, with greater freedom and rigour, the meaning of his research.

In two of the many exhibitions of those years it seems that Ungers has set itself the goal of radicalizing the themes of variation on the shape of the cube and the relationship that the form has with the surrounding space. In 1985 he held in Cologne the exhibition *Sieben Variationen der Raumes über die Sieben Leuchter der Baukunst von John Ruskin*²⁴. The exhibition hall of the Kunstverein in Cologne, a regular and elongated environment, is transformed into a space of experimentation that combines, in a complex unity, the uniqueness of the place and the universal validity of the form in its variations (Figure 2). Ungers, to present his work through original drawings, sketches and models, divides the narrow and long exhibition space of the room according to the structural scan of the space, inserting seven elements, equal in size and placed in sequence according to a pressing rhythm²⁵. There are seven exhibition installations that, themed with respect to the different contents of the collection of architectures, are structured inside according to different spatial devices while, externally, they show themselves as equal fences that can be accessed through small openings.

The square shape of the exhibition environment can therefore be interpreted as shell, labyrinth, gallery, octagonal hall, *poché*, element and *enfilade*²⁶. In these seven spaces, a tribute to *The Seven Lamps of Architecture* (1849) by John Ruskin (1819-1900), which represent the scenario in which the author's architecture is divided and presented in seven chapters, Ungers has the opportunity to reify his search for an architecture that, in tension between form and place, can visualize the dynamic process of transformation of the basic modular form. He then develops an exhibition architecture in an artistic space, basing it on the same clarity and dialectical principle that nourishes its architecture. Five years later he inaugurated, again in Cologne, the *Kubus* exhibition²⁷ in which he continues this research on the

24. The exhibition *Sieben Variationen der Raumes über die Sieben Leuchter der Baukunst von John Ruskin*, was inaugurated on 21 June 1985 at the Kunstverein in Cologne. On the occasion of the exhibition two separate catalogues were published, one specific on the exhibition (Ungers, O. M. (1985) *O. M. Ungers Sieben Variationen der Raumes über die Sieben Leuchter der Baukunst von John Ruskin*, Stoccarda, Verlag Gerd Hatje) and a monographic volume on the first thirty-five years of Ungers architecture (Klotz, H (ed)(1985), *O. M. Ungers 1951-1984: Bauten und Projekte*, Friedrich Vieweg & Sohn, Braunschweig-Wiesbaden).

25. Noebel, W. A. (1985) *Sette volte sette. Una mostra e un libro di O. M. Ungers*, in *Casabella* n°517, 34.

26. In the original text the space variations are called as: "die Schale, das Labyrinth, die Galerie, die Enfilade, das Element, das Poché, das Oktagon".

27. The exhibition, entitled *Ungers-Kubus*, was inaugurated in June 1990 at the Max Hetzler Gallery in Cologne. On the occasion of the exhibition was published the catalogue Günther Förg, *O. M. Ungers. Kubus*.

theme of the variation and transformation of the basic shape of the square and the cube that becomes the theme of the exhibition (Figure 3). The investigation of reality is therefore carried out through the process of formation and transformation of forms, specifically the cube, and this will mark the direction of Ungersian research on architecture towards the dimension of art.

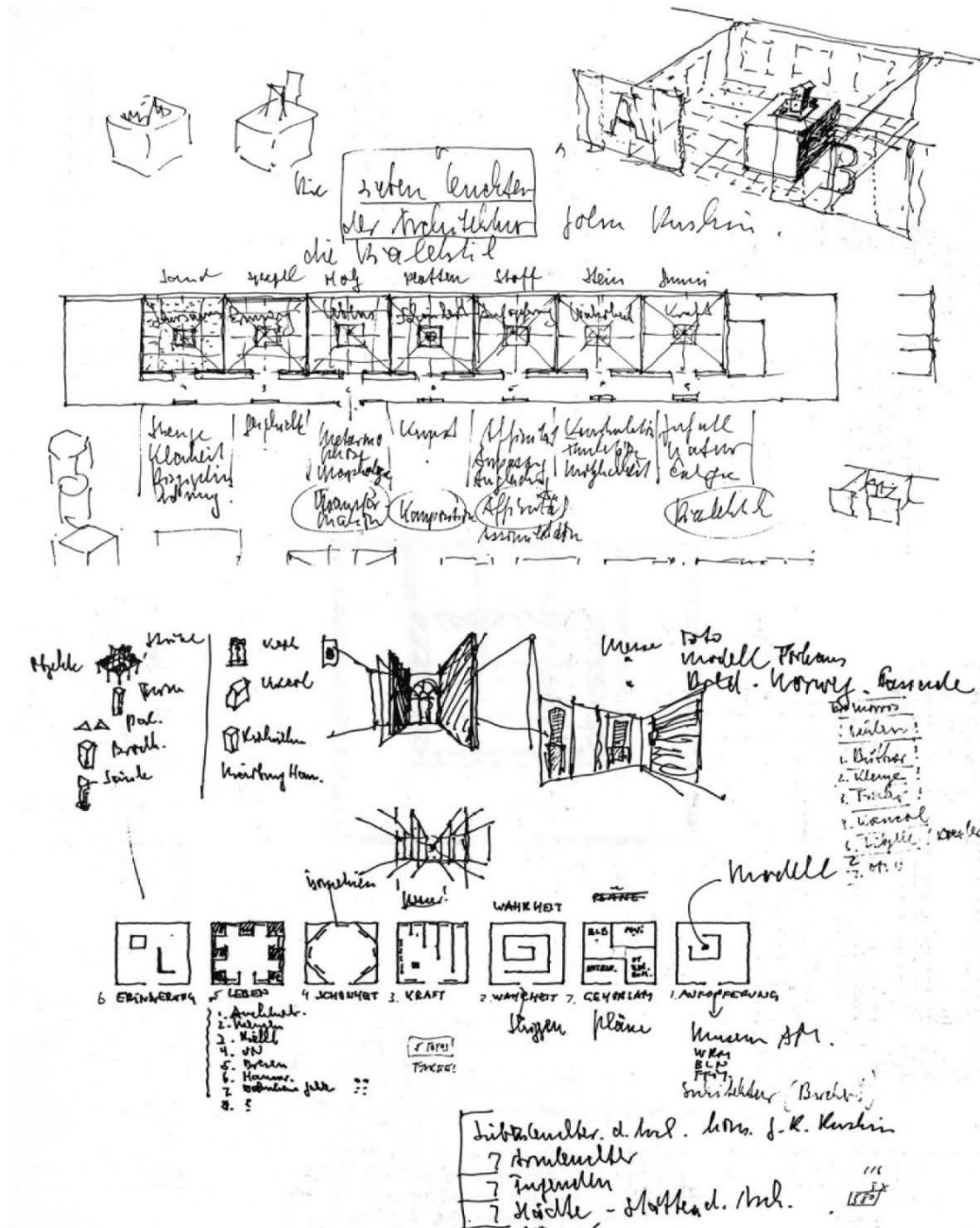


Figure 2. Oswald Mathias Ungers, *Studies for Exhibition Design Sieben Variationen der Raumes über die Sieben Leuchter der Baukunst von John Ruskin*, Kunstverein, Colonia 1985.

Source: Oswald Mathias Ungers, *Siebem Variationen des Raumes ueber die Sieben Leuchter der Bauder Baukunst von John Ruskin*, Gerd Hatje, Stuttgart 1985.

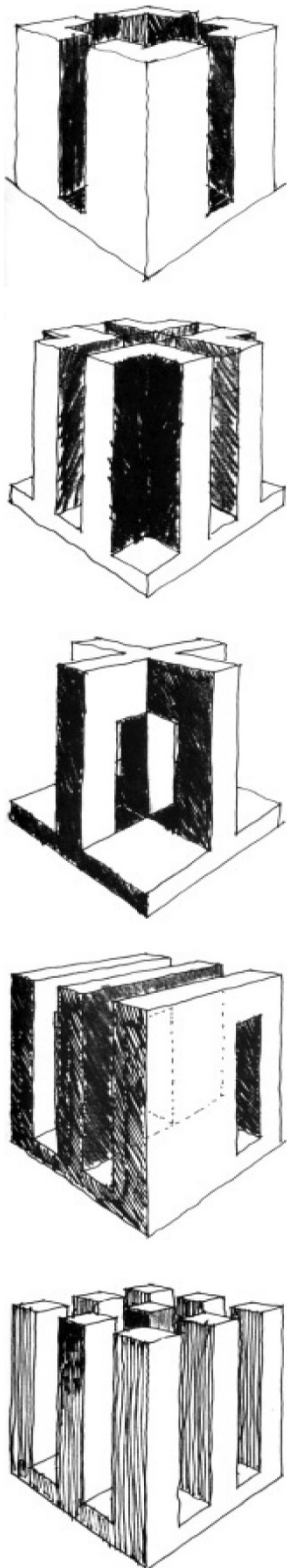


Figure 3. Oswald Mathias Ungers, *Study Sketch for the Exhibition Kubus, Cologne 1990*

Source: Oswald Mathias Ungers, *Zehn Kapitel über Architektur. Ein Visueller Traktat*, DuMont Verlag, Colonia 1999, pp. 125-133.

Precisely this constant return of the same element variously interpreted represents the basic principle of making architecture for Ungers. The compositional principle of morphological transformation, taken through the teaching of architecture in history, is, as we have seen, documented and deepened in many of Ungers' projects: its rigorous and radical application in the last project of the author represents the possibility of building understood as the result of a research on the same theme that lasted a lifetime.

The new entrance to the Kaiserthermen represents a radical experimentation of the principle of transformation into architecture that Ungers has the opportunity to apply for the first time in a built work, in an extremely legible way.

The new entrance to the Kaiserthermen thus represents an architecture understood as pure *transformation*. In an interview, Ungers comments on the building, saying: "On this idea of transformation [...] I have always tried to transform one thing into another. Now in Trier, for the first time, I can build this idea of transformation where the same line of the building becomes a portico, becomes a street of trees, becomes just a column and passes through the different degrees of transformation"²⁸.

What emerges from this diachronic interpretation of the search for transformation in Ungers' architecture is the permanence and fixity of his work on specific themes, attributable to the deep meaning of architecture. Looking at the overall work of the author we see that over time his interest in the value of form has followed a development that has led him, in recent decades, towards an abstract architecture. This return in the last project to the concepts of morphology and transformation does not, in our opinion, constitute a loss of coherence, much less a rethinking or an illogical trend of his research. Indeed, it is interpreted as a confirmation of the constancy with which Ungers brings every project to the essence of architecture, to the theme. See in this way, transformation into architecture means nothing more than the continuous fixity on the internal forces of architecture that, although varied, combined, transformed or represented in the most abstract form, always remain at the center of his making and thinking architecture.

The Search of the *Analogy* between Art and Architecture

After investigating the different meanings embodied by the concept of *transformation* in the work of Oswald Mathias Ungers, and in particular in the architectural composition that underlies his latest project for the monumental complex of the Kaiserthermen in Trier, it remains to be clarified what is the immanent meaning that this principle assumes if put in relation to the concept of *form* (Figure 4).

The etymological meaning of the term *transformation*, from Latin "*transforma*" indicates an induced operation that involves a change of form. An operation that therefore shows not so much what the form is, its static and fixed meaning, but rather what the form can become through the application of the meta-morphosis process.

28. Trentin, A. (2004), *Oswald Mathias Ungers. A proposito dell'idea costruita. Conversazione con Annalisa Trentin*, in A. Trentin (ed), *Oswald Mathias Ungers: una scuola*, Milano, Electa, 60.

On this consideration is based the interest and the concept of transformation for Ungers: “Architecture behaves like nature. It has the ability to transform from one form into another. Forms are never in themselves concluded; they always contain their opposite”²⁹.

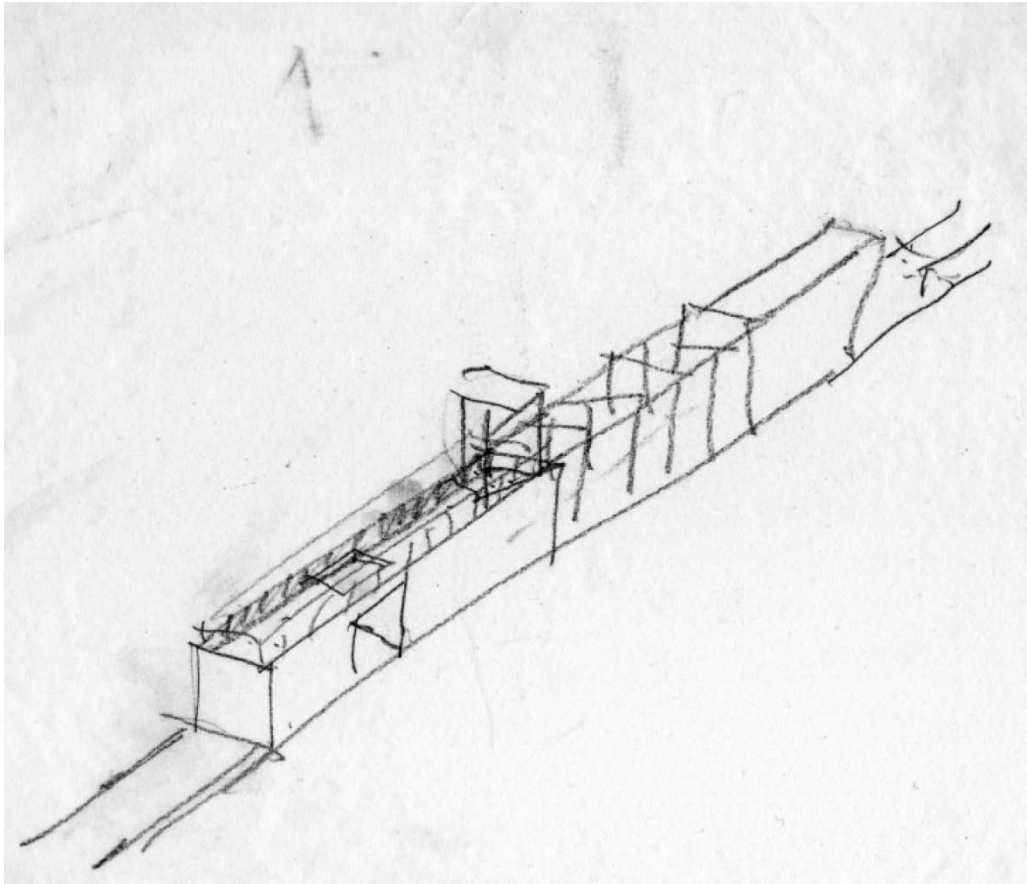


Figure 4. Oswald Mathias Ungers, *Project Sketch for the Entrance to the Kaiserthermen, Axonometry*

Source: Ungers Archiv für Architekturwissenschaft, Cologne, *Projektordner EKT*.

It's through the use of the meaning of form in the relationship between the architectural and the artistic dimensions that becomes possible to understand how the principle of transformation is translated into architecture. In this context, the studies of Henri Focillon (1881-1943), published in *Vita delle forme*, represent a clear connection between art and architecture through the study of form, in all the meanings that it assumes as the essential content of the work of art. For Focillon “[...] the work of art is motionless only in appearance. It expresses a desire for fixity, it is a stop; but in the manner of the past. In reality the work is born from a change and prepares another. [...] The strictest rules, which seem made especially to dry up formal matter and reduce it to extreme monotony, are precisely those that best highlight its inexhaustible vitality, with the richness of variations and the stunning

29. Ungers, O.M. (1998), *Pensieri sull'architettura*, in *Casabella* n. 657, 20.

fantasy of metamorphosis. [...] Form can become formula and canon, that is, abrupt stop, exemplary type, but it is primarily a mobile life in a changing world. The metamorphoses continue indefinitely”³⁰.

Transformation therefore understood as an antinomic expression par excellence in which the process of formation and transformation is an open system without borders, within which form is understood not as a fixed and immutable element but as a generator of meaning in its continuous movement and change. The antinomy, therefore, both in the vision of Focillon and in that of Ungers, becomes a tool to accept one element without excluding another.

Thanks to the concept of antinomy it is possible to define for the German architect a method that allows to hold together the maximum plurality of principles and elements. The dialogue between art and architecture investigated here is based in this space, which is defined by antinomic contrasts. Entering into the merits of this dialogue, we can see how the dimension of architecture and art intertwine, touch or chase each other on parallel lines, instigating a close relationship between distinct areas in an ideal metaphorical sphere that unites the two systems. The search for a point of connection between architecture and art in Ungers' work reveals how many references exist between these two worlds. Both in the correspondence on theoretical, compositional and methodological issues and in the collaborations between architect and artist, compositional criteria are defined in synergy between the tools of the architect and those of the artist. The close relationship, sometimes of a private and personal nature, between these two complementary figures has determined the co-existence of art in architecture.

This survey is concerned with identifying points of contact between these two worlds, considering the project for the new entrance to the Kaiserthermen in Trier as the starting point and main object of the discourse (Figure 5).

30. Focillon, H. (1945), *Vita delle forme*, Padova, Le tre Venezia, 12-13.

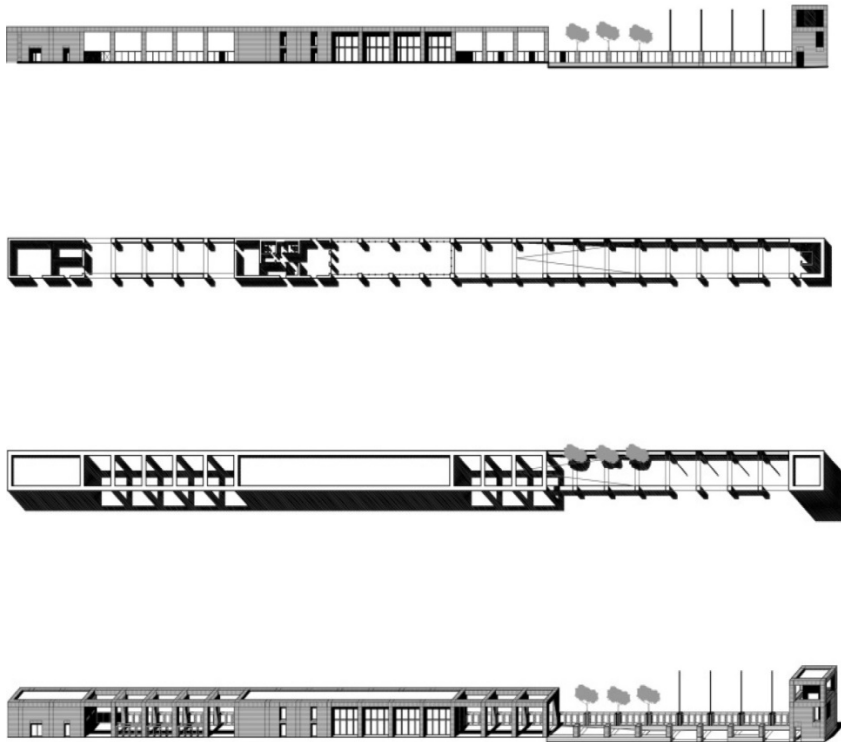


Figure 5. Oswald Mathias Ungers, *Entrance to the Kaiserthermen, Trier, 2007*

Source: Martina D'Alessandro, 2012.

The project, in its genesis and conformation, offers the opportunity to explain what are the compositional and formal links that link Ungers' architecture to the world of contemporary art.

The first aspect to deepen in this system of correspondences is the personal relationship that Ungers builds over time with some contemporary artists, focusing on the project action in collaboration with artists. The purpose of the joint work between Ungers and the artists is to obtain, through the deepening of a shared interest on some issues, such as the characterization of outdoor spaces through installations, the composition of the interior environments with paintings and sculptures, and the structure of the external space through the green project, a unique concept of space, an architecture understood as a work of art. There are many examples that support the hypothesis that in the buildings of Ungers the symbiosis with different artists represents an intrinsic value of the project, demonstrating how this interweaving between space and work of art is a fundamental instance in the design method of Ungers, investigated and experimented with continuity from the projects of the eighties until the last building built in 2007. The structure of the works, their placement, both inside and outside of the architectures, their definition of space are questions that reflect the conception on which Ungers structures the building.

What is evident is the ontological value that works of art embody in the buildings of Ungers, not considered as mere applications or decorations of space, but rather as valuable vehicles promoting a dialogue between art and architecture, artist and architect, in a shared understanding of the concept of composition. The collaborations

that OMU has made with different artists, before elaborating his latest project, are multiple³¹.

Ungers sees in this intertwining of close and continuous collaborations with contemporary art one of the possible paths in which art and architecture can merge into a new unity. If looking at the project for the Kaiserthermen one tries to imagine the building without the place for which it was conceived, without any linguistic, functional, technical and constructive characterization, without fixtures, without the homogeneous skin of bricks that covers it, without plants or hedges, then you would have an unprecedented vision of the formal structure of the work. It would be impossible not to perceive the charm of the allusions and references that the building, brought back to its pure structure, would establish with the research on form conducted by some of the artists that Ungers collects and works with. This new image of the building, which suggests the second point of view from which to observe the work and the relationship it establishes with the world of art, highlights how pure geometric shapes are constituted by the same basic structures and that, in the common research on form, new compositional correspondences between artistic tendencies and architectural conceptions can be investigated. The same compositional principle of transformation, which is at the base of the architectural choices of the project and which turns into the construction of a morphological sequence, takes on unexpected connotations and deeper meanings if observed through the tools of art. On the contrary, precisely by the fact that the works of art in all the different manifestations, be they paintings or sculptures, express their contents more freely, without questions of function or utility, allows us to identify a new research that reveals correspondences and values other than those already known about this theme. In this last project of the author the study of form opens the door to the most rational and controlled, but at the same time radical, experimentation of the *cube* form in all its variations, combinations and modifications. In this work on shape, Ungers focuses primarily on plastic art.

As Jasper Cepl has pointed out, in these years Ungers seems indifferent to what is architecture and what is sculpture, because in the end he sees them as two *arts* united in the conception of form, which pursue the same task and objective, that is to give spirituality to a monument³². The tension of architecture towards sculpture is also present in his early works, as in the house of Cologne in Belvederestrasse. But the approximately thirty years of work, during which the long path towards reduction and abstraction has developed, have transformed his way of conceiving sculpture in architecture. "It's true, my works of the fifties are very sculptural. At the beginning they were predominant. At the same time, and you can see this in my works over time, there is a tendency to abstraction. [...] For this reason, therefore, it is necessary to be less sculptural! By sculptural I mean everything that protrudes or falls, and it's a very bourgeois, very simplified concept. There are the wonderful sculptures of Constantin Brancusi, Barnett Newman or Sol LeWitt, completely

31. D'Alessandro M. (January 2023), *Contaminations between architecture and art. Oswald Mathias Ungers and artistic collaborations*. International Journal of Civil Engineering and Architecture (IJCEA) Vol.01, No.1, 1-13.

32. Cepl, J. (2007) *Oswald Mathias Ungers. Eine intellektuelle Biographie*, Colonia, Walther König, 507.

reduced figure, which are, nevertheless, significant sculptures”³³. And here recalls Sol LeWitt, an artist admired and collected by OMU. Ungers refers to the “wonderful sculptures” of the American artist to explain the relationship between plastic art and architecture in his work.

LeWitt represents for him an exemplary artist and he considers his bodies as completely simple and plastic elements, but not expressive, while showing a high degree of spiritualization. If we look at the general production of the American artist we discover a multiplicity of assonances and references to that of Ungers. There are many questions that motivate and structure a comparison between the two figures. First of all, the frequent and continuous collaborations, of which we have already spoken, have allowed the architect and artist to get to know each other on the work table, establishing a dialogue on the issues that bind the respective projects. I believe that this aspect is the confirmation of a long process of knowledge and a deeper reflection of Ungers on LeWitt’s work. Approach and knowledge that then led him to the inclusion of the artist in his personal art collection³⁴ and the desire to confront his work in the architectural project. Sol LeWitt’s long artistic activity, lasting about forty years, - a pioneer of conceptual art that has most influenced the artistic development of his generation - concentrates between the sixties and the end of the seventies the production of works and theoretical writings on which is based all his poetry and his way of making art (Figure 6).

In June 1967 he published his *Paragraphs on Conceptual Art*³⁵ followed by *Sentences on Conceptual Art*³⁶, published in January 1969, considered by critics as two of the most important writings published in those years, in which the author crystallizes in brief peremptory assumptions his point of view on the true meaning of art and method in the artistic process. Since 1968 he has been involved in wall painting, starting a research of almost twenty years with the production of *Wall Drawings*. In 1974 the structures of *Variations of Incomplete Open Cubes* saw the light.

Both works, in their investigation of themes related to the concept of variation, seriality and geometry, represent the synthesis of the artist’s reflections on art and constitute the beginnings of a long and profound research on the role of form in art. In these years Ungers is in America to carry out the teaching activity at Cornell University and breathes the atmosphere of change that has irreversibly changed the underlying coordinates of artistic research in the direction of a definitive breakthrough of borders traditional painting and sculpture. In analyzing the work of Ungers and LeWitt, it appears clear how the system of correspondences between the theoretical and methodological approaches to the project, as well as the common tendency to

33. Jäger, F. P., (2004) *Es geht um Ausgewogenheit, Klarheit und Stimmung., conversazione con Oswald Mathias Ungers*, in F. P. Jäger (ed), *Dorotheenhofe. Oswald Mathias Ungers baut in Berlin*, Berlino, Jovis, 32-41.

34. Ungers' collection of contemporary art includes the sculpture *Lines in Four Directions* from 1982. For further information on Ungers' personal collection, see the texts Lepik, A. (ed) (2006): *O. M. Ungers. Cosmos of Architecture*. Ostfildern: Hatje Cantz; Ungers Archiv für Architekturwissenschaft (ed) (2006): *O. M. Ungers. Kosmos der Architektur*. Düsseldorf, Die Qualitaner.

35. LeWitt, S. (1967) *Paragraphs on Conceptual Art*, in *Artforum* vol. 5, n° 10, 79-83.

36. LeWitt, S. (1969), *Sentences on Conceptual Art*, in *Art-Language* vol. 1, n° 1, 11-13.

the purity and formal simplicity of their works, is here interpreted as a ground for comparison between the two figures.

It seems that putting one close to the other the work of Oswald Mathias Ungers and Sol LeWitt offers an opportunity to shed light on the shared interpretation that the two authors have of the world of forms postulated by Henri Focillon. In the conception of art as a system of formal relations and not as a symbolic expression, Focillon bases the absolute autonomy of the artistic form with respect to time, place and environment in which it manifests itself. Form has its own universe, governed by its own laws, with its own space, development and matter. The work of Ungers and LeWitt finds itself and meets in these interpretations on the value of form. In view of these coincidences, with this reading of Ungers' work the dimension of sculpture and architecture in relation to the idea of form, understood as the lowest common denominator between the two areas. The aim is to verify and demonstrate how and if in the project for the Kaiserthermen of Trier Ungers pursues, with the tools of the architect, the same principles that Sol LeWitt expressed in his works of art, trying to propose a reading of the building that explores in depth the system of cultural and formal values on which it is based.

Immediately emerges the limit of this critical reading that can't consider in depth all the many nuances of theoretical reflections and the complete production of works of LeWitt, because it would risk to cross the boundaries that this research has set itself. The art-architecture nexus is then analyzed narrowing the field of investigation to just two works, the project for the Kaiserthermen of Ungers and LeWitt's *Variations of Incomplete Open Cubes*, one of the most significant works of Sol LeWitt's career, work that marked a turning point in the author's art. *Variations of Incomplete Open Cubes*, elaborated on the occasion of the homonymous exhibition held at the San Francisco Museum of Art, expresses, in the most sophisticated form, the LeWitt way of thinking and making art (Figure 7).

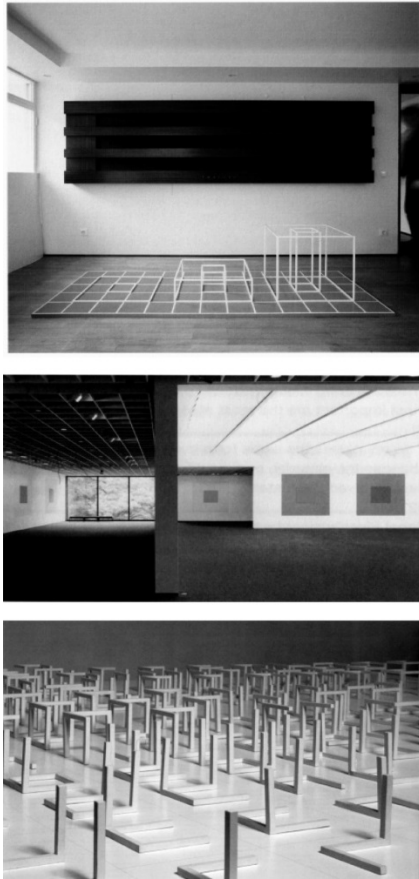


Figure 6. From Above: Ungers Art Collection: Above Gerhard Merz, Trieste, nd; Sol LeWitt, Untitled (1984); Sol LeWitt, Wall Drawings 1176, Seven Basic Colors and All Their Combinations in a Square within a Square For Josef Albers (2005); Sol LeWitt, Variations of Incomplete Open Cubes (1974)

Source: Andreas Lepik, O. M. Ungers. *Cosmos of Architecture*, Hatje Cantz, Ostfildern 2006, p. 24. Sol LeWitt, *Wall Drawing 1176. Seven Basic Colors and All Their Combinations in a Square within a Square For Josef Albers*, Richter Verlag, Düsseldorf 2006, p. 112. Nicholas Baume, *Sol LeWitt: Incomplete Open Cubes*, The Wadsworth Atheneum Museum of Art, Hartford 2001, p. 1.

The work is generated by a simple and at the same time paradoxical idea: the artist carries out an exhaustive, complete investigation into how it is possible to think and visualize *not completely* the shape of a cube. The complexity of the idea and the richness of meaning of this work is also revealed in the structuring and presentation of the work in different and complementary sections. It consists in fact of a series of drawings, representing isometric axonometries, photographs and in black and white, a book and a long series of one hundred and twelve three-dimensional structures in white wood of cubes of the same size, of about twenty centimeters per side, placed on a gray plane marked by the design of a white grid. LeWitt makes the shape of the cube explode, multiplies it, determining the configuration of each three-dimensional structure based on a variable and progressive number of sides ranging from three to eleven. The series, defined and refined over the years through a copious production of work tables, drawings and sketches, begins with a unit

consisting of three sides, the minimum number to build a three-dimensional figure, and ends with the last incomplete structure consisting of eleven sides.

The genesis of *Variations of Incomplete Open Cubes* revolves around three central themes, typical of LeWitt's work and also found in Ungers' building: the reflection on the shape of the cube, the seriality and the non-completeness of the composition³⁷.

First of all, since the sixties LeWitt denounces its deep attraction for the shape of the square and the cube, so much to summarize in the famous text *The Square and the Cube*, to which Ungers often refers: "The best that can be said for either the square or the cube is that they are relatively uninteresting in themselves. Being basic representations of two- and three- dimensional form, they lack the expressive force of other more interesting forms and shapes. They are standard and universally recognized, no initiation being required of the viewer; it is immediately evident that a square is a square and a cube, a cube. Released from the necessity of being significant in themselves, they can be better used as grammatical devices from which the work may proceed. The use of a square or cube obviates the necessity of inventing other forms and reserves their use for invention"³⁸.

These words identify precisely the field of investigation in which Ungers' interest moves,³⁹ offering a key to understanding his work in architecture and, in particular, the logical compositional structure that underlies the project for Trier. The entrance building to the Kaiserthermen summarizes with surprising clarity how the shape of the cube takes on the role of grammatical form that, in its variations, aggregations and dematerializations, builds the syntactic structure of architecture.

Both works examined here are the final result of a research on how, starting from a complete basic modular element in all its parts, it is possible to explain all the possible ways of representing a cube through the different variations of the incomplete shape of the cube. Variation is the idea from which the two works are generated.

The idea of variation gives rise to two different levels of meaning: first, Ungers as LeWitt is fascinated by the thought of being able to transform the static shape of the cube into a multiplicity of different forms that, despite their diversity, retain their belonging to the sphere of the pure figure, that is, they do not turn into a different form but represent *another way* of being cube. Secondly, the two artists feel it is necessary to describe this path of transformation, to explain every single passage, in order to make understandable to those who observe the logic that holds together all the individual variations. As already mentioned, for Ungers the *transformation* is

37. Baume N. (2001), *The music of forgetting*, in Baume N. (ed), *Sol LeWitt: Incomplete Open Cubes*, Hartford, The Wadsworth Atheneum Museum of Art.

38. LeWitt S. (2006), *Das Quadrat und der Würfel - The Square and the Cube*, in Liesbrock H., *Die Idee der Farbe. LeWitts S. Wall Drawing For Josef Albers - The Idea of Color. Sol LeWitts, Wall Drawing For Josef Albers*, in *Sol LeWitt Wall Drawing 1176. Seven Basic Colors and All Their Combinations in a Square within a Square For Josef Albers*, Düsseldorf, Richter Verlag, 114-115. The text, originally untitled, is published for the first time in L. R. Lippard (1967) *Homage to the Square*, in *Art in America*, n° 4, 54.

39. Ungers O. M. (1992) *Dal quadrato al cubo. Biblioteca di casa Ungers*, in *Lotus international* n° 72, 50-55.

the change from one state to another, a concept that implies strong links with nature if understood as a cyclical process of formation-transformation.

The transformation, unlike the one-sided and unilateral processes, allows to establish complex systems of *relationships, correlations and interdependencies* between different, heterogeneous and contrasting elements and as a free principle that establishes relations of reciprocity and complementarity between concepts and elements, is a *dialectical thought*, which always leads to a higher level of complexity and knowledge. The process of transformation therefore puts different, sometimes opposite, elements into a new conceptual and formal organism, in which all the different passages from one state to another of transformation are clear and legible, making the new reality full of complexity and stratification. In *Architettura come tema*, text in which Ungers speaks of transformation as a compositional principle, we read: “Therefore also the language of architecture can be enriched and made more expressive thanks to transformation; then, instead of neutral assertions, generalizable forms and selected specific elements reappear”⁴⁰.

He returns to the same principle a few years later when he writes in *Modificazione come tema*: “[...] This presupposes on the one hand that reality is recognized as a formal reality and on the other that every form can be transformed into another, into a new, and that no form is absolute or exclusive, but always inclusive and understood as a system of dialectical relations. Each form has its complementary counter-form. Each form has its complementary and modified counter-figure”⁴¹.

40. Ungers O. M. (1982) *Architettura come tema*, in *Quaderni di Lotus*, n.1, Milano, Electa, 14-15.

41. Ungers O. M. (1984), *Modificazione come tema*, in *Casabella*, n. 498-499, 28.

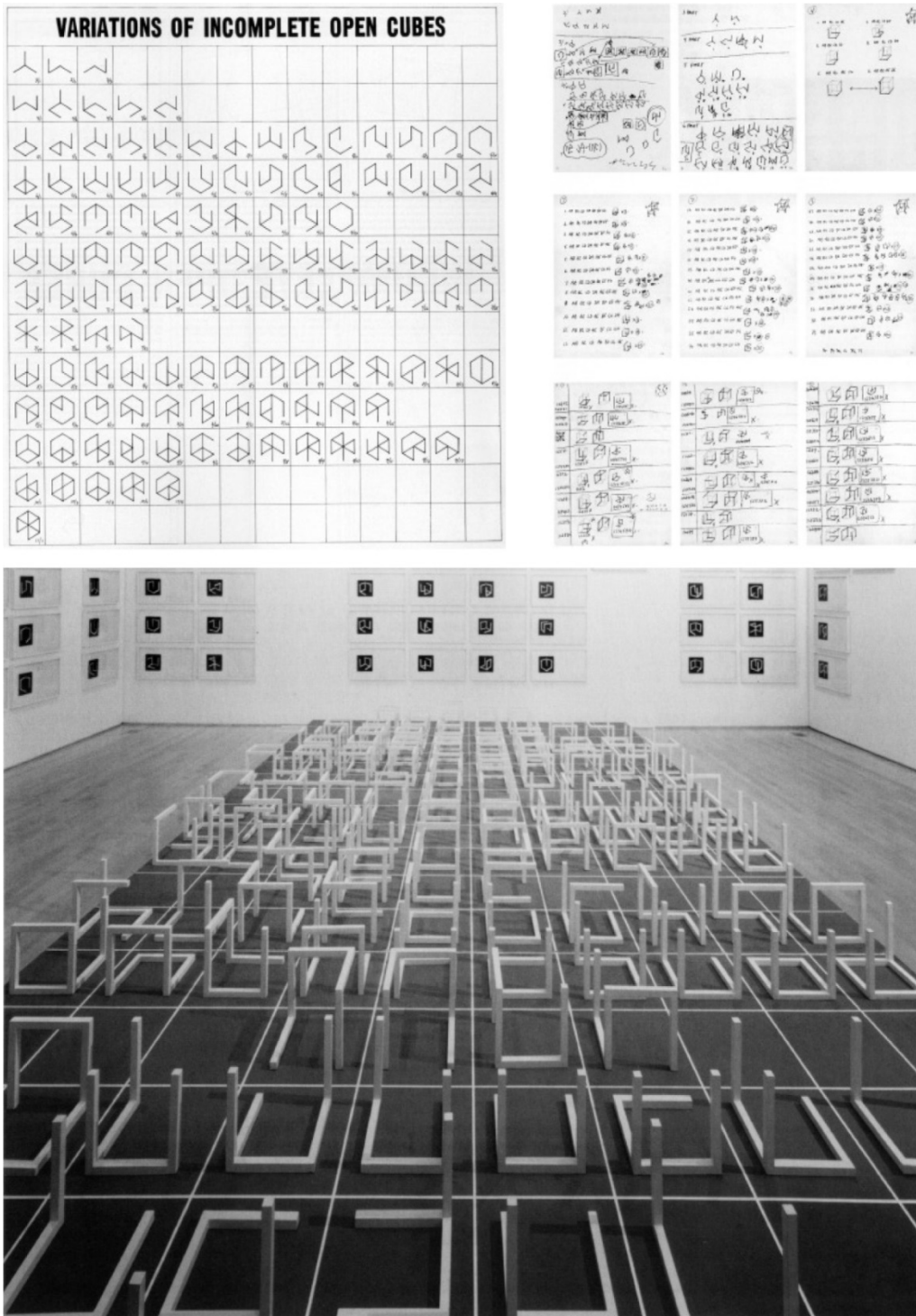


Figure 7. From Above: Sol LeWitt, Schematic Drawing for Variations of Incomplete Open Cubes (1974); Sol LeWitt, Sketch for Variations of Incomplete Open Cubes; Sol LeWitt, Variations of Incomplete Open Cubes (1974)

Source: Nicholas Baume, *Sol LeWitt: Incomplete Open Cubes*, The Wadsworth Atheneum Museum of Art, Hartford 2001, p. 13; 24; 50.

Reading the structure of the Trier building as a long progression that connects the form to the complementary counter-form reveals the relationship of dialecticity that binds the individual parts together in a single general system. The building, in fact, if dismantled and brought back to its basic modular unit, that is a cube of about seven meters on the side, is told to the observer, guiding it step by step, module by module, in the path of shape exploration in all possible variations. Ungers starts by considering the cube as a compact and completely closed block and, as he aggregates the individual volumes, he begins to work on the mass. Dig the block, first carving small open surfaces and then completely empty the compact volume and reduce it to pure structure. Ungers continues his research on the shape and its transformation until isolating the different elements of the skeleton of the cube: the sequence of pillars, trees and column rocks starts. Borrowing Focillon's words, looking at the formal structure of this project one could say: "Nothing is more seductive - and nothing, in certain cases, is better founded - than showing the forms subject to an internal logic that organizes them"⁴².

Similarly LeWitt's work originates from the explosion of an inductive energy that explores and experiences the potential of the idea, proceeding in a rational chain of reasoning and logical steps. This inductive method, which unites the work of the two authors, reveals the meaning of the work: "The differences between the parts are the subject of the composition. If some parts remain constant, it is to punctuate the changes [...] The series would be read by the viewer in a linear or narrative manner even though in its final form many of these sets would be operating simultaneously, making comprehension difficult. The aim of the artist would not be to instruct the viewer but to give him information"⁴³.

The second theme of comparison between the two works is the use of seriality as a design criterion that derives directly from the narrative choice embodied by the works. Seriality becomes an important device in the work of the two authors because it represents the tool to reify the concepts of variation and transformation in a constructed form (Figure 8). Seriality, an artistic mechanism common to the work of other artists of the LeWitt generation and present in the private collection of Ungers, "[It is] a way of creating art that did not rely on the whim of the moment but on consistently thought out processes that gave result that were interesting and exciting"⁴⁴.

The subsystems that constitute LeWitt variations follow a sequence that is not based on a unitary system that structures the work in its entirety.

42. Focillon H. (1987), *Vita delle forme*, Einaudi, Torino, 15.

43. LeWitt S. (1994), *Serial Project No. 1 (ABCD)*, in A. Zevi (ed), *Sol LeWitt: Critical Texts*, Roma, I libri di AEIOU, 99.

44. LeWitt S. (1978), *Commentaries*, in A. Legg (ed), *Sol LeWitt*, New York, The Museum of Modern Art, 81.

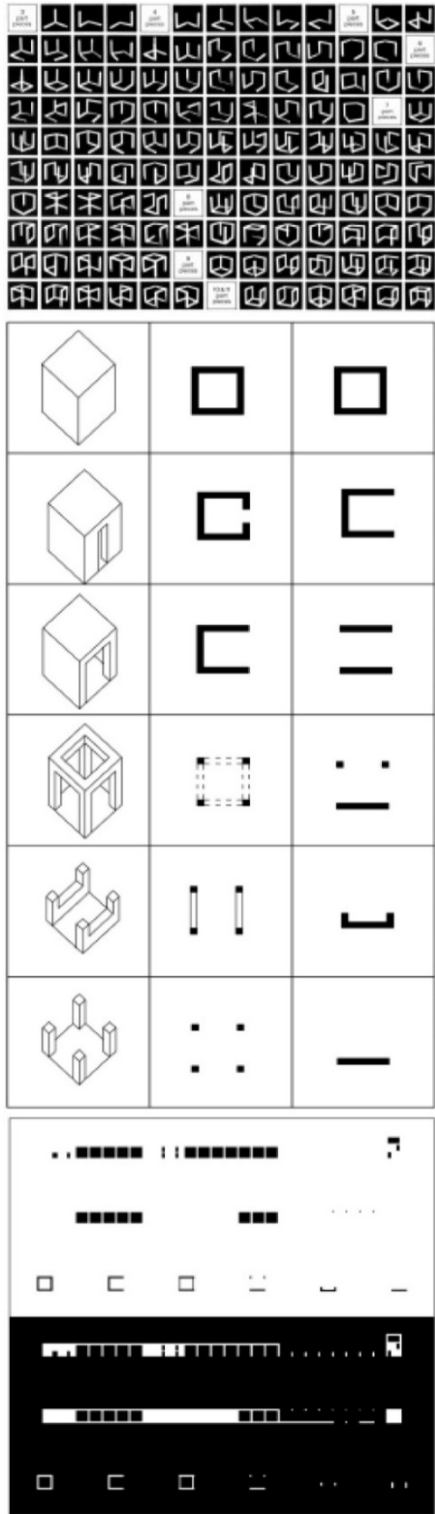


Figure 8. From Above: Sol LeWitt, *Variations of Incomplete Open Cubes* (1974); *Abacus of Transformations of the Basic Module of Kaiserthermen' Project*; *Variations of Kaiserthermen' Project*

Source: Nicholas Baume, *Sol LeWitt: Incomplete Open Cubes*, The Wadsworth Atheneum Museum of Art, Hartford 2001, p. 8; Martina D'Alessandro, 2012.

The American artist does not rely on a systematic method in the processing of sequences, but starts from the simplest passage and then continues to work in progression through the most complicated solutions. The arrangement of the different combinations in series and morphological sequences becomes the most complete and elaborate criterion to express, in the simplest way, the idea of the work.

In the same way Ungers seems to start from a logical and orderly mental structure for the construction of the sequence of parts of the building. If you refer to the image *Logarithmische Transformation*, published in *Zehn Kapitel über Architektur. Ein Visueller Traktat*⁴⁵ a few years before Ungers began work on the latest project for Trier, there is a surprising harmony between the idea of seriality in logarithmic transformation and that of sequence in the architectural transformation elaborated in the project (Figure 9). It seems that the abstract image of the ordered, progressive and gradual succession of elements in a growing logarithmic order was, a few years later, used as a basic lucid for the new project, translating the same idea into architectural form. The strict and coercive order of the logarithmic sequence is divided to leave room for a reassembly of the individual parts, taking into account, at the same time, also the distribution and functional needs of the project and the characteristics of the place. Finally, in this “narrative choice”, which is reversed in the sequence of elements in the work of Ungers and LeWitt, the process of composition is carried out. In the path that translates the idea into form, the *ratio* is transformed from an initial impulse into a narrative structure, aimed at explaining the work. The individual elements of this serial chain are no longer individually controlled and isolated, but are inserted into a compositional system.

Understanding the project for the Kaiserthermen and *Variations of Incomplete Open Cubes* necessarily implies considering the single module as a dense element of meaning only if related to the system general, understood as unity. The very concept of unity, however, is a concept of itself *open*, elusive, temporary. The work of the two authors in fact stubbornly moves right into the dimension of *incompleteness*: to tell in a single unitary system how different cubic shapes can be obtained starting from a basic module, the compositional process sequences several incomplete forms, which have been subjected simultaneously to subtraction and addition. The starting cube, complete in its parts, is gradually disassembled, deprived of one of its components: in one case, LeWitt subtracts a corner of the skeleton of the cube, in the other Ungers eliminates a vertical wall or horizontal ceiling. But the incompleteness of the fragments in succession is denied by the repetition of the module transformed into an additive process potentially without limits. In this conception of composition as an *open* and *incomplete* system, we can read in the building of Ungers, which evokes the image of a very long wagon train with unlimited extension, the intention to underline the incompleteness of the possible variations of the basic module through the opposition of the initial half module, which serves as the head block of the whole system on the Weberbachstrasse and the double final module of the lookout tower that closes the sequence (Figure 10).

45. Ungers O. M. (1999), *Zehn Kapitel über Architektur. Ein Visueller Traktat*, Cologne: DuMont Verlag.

Conclusions

From the elements that emerge from the comparison between these two works, it is clear that Ungers' and LeWitt's parallel research on form is rooted in a contradictory and sometimes paradoxical interpretation of the artistic impulse. So Ungers describes the process from which its architecture derives: "Emotion is controlled by rational thought and rational thought is stimulated by intuition. The dialectical process between two polarities is almost essential in a creative process that is directed towards a gradual improvement of ideas, concepts, spaces, elements and forms"⁴⁶.

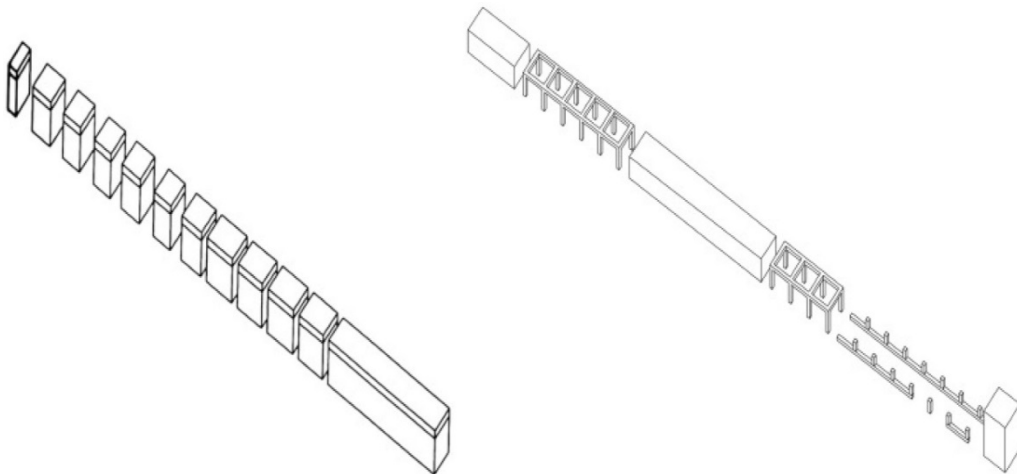


Figure 9. *Logarithmic Transformation*

Source: Oswald Mathias Ungers, *Zehn Kapitel über Architektur. Ein Visueller Traktat*, DuMont Verlag, Colonia 1999, p. 369; Martina D'Alessandro, 2012.

The simultaneous presence of contradictory ideas and stimuli frames the work of the two authors in the mental form of the *varietas in unitas*, in which the work of art and architecture are born from the dialogue between rational and irrational, between order and chaos, between intuition and logic, between the whole and the single part. It is precisely in this universe of contradictions that the boundaries of the dialogue between the project for the Kaisertheremen by Oswald Mathias Ungers and *Variations of Incomplete Open Cubes* by Sol LeWitt are revealed. This comparison between Ungers' work and that of LeWitt brings out the fundamental autonomy between the world of architecture and that of plastic art: they underlie different, albeit close and parallel, systems of formal relations. Returning to Focillon's reflections on forms in space, it is evident that this autonomy, in its contradictory and antinomic meaning, leaves room for moments of coherence and contiguity between the two dimensions. "The form is not indifferent architecture, sculpture and painting. Whatever may be the exchanges between techniques, however decisive is the authority of one of them over the others, the form is first qualified by the special

46. Ungers O.M. (1983), *The New Abstraction*, in *Architectural Design* n. 53, vol.7-8, 37.

field in which it is exercised, and not by a desire of the intellect, and so it is true of space that it demands and is built⁴⁷.

The architect, however, reveals in his work all the interferences with the other arts: “thus the builder envelops, not the void, but a certain stay of forms, and, working on the space, models him, outside and inside, like a sculptor. He is a surveyor when he draws the plan, mechanic when he composes the structure, painter for the distribution of effects, sculptor for the treatment of masses. All this he is time to time and more or less, according to the needs of his spirit and according to the state of the style⁴⁸.



Figure 10. *Entrance to the Kaiserthermen*

Source: Martina D’Alessandro, 2009.

The process by which Ungers elevates the archaeological complex of the Kaiserthermen to the rank of a work of art is an interpretative path in which the rational component joins the emotional one, in which knowledge is complementary to the invention, where architecture is confronted with art. Ungers, in this project, implements a compositional process aimed at achieving and identifying a new configuration of the monumental complex through a transformation of the artifact into a work of art, in which a new system of relationships, of spaces and forms

47. Focillon H. (1987), *Vita delle forme*, Torino, Einaudi, 28.

48. Focillon H. (1987), *Vita delle forme*, Torino, Einaudi, 36-37.

contributes to attribute to the artifact *other* meanings and unprecedented possibilities for development. In this compositional structure underlying the project, the experience of the city, its spatial conformation and its history, the knowledge of the value of the archaeological component are elements that enter the project as active parts of the compositional process.

The relationship with the city, the superimposition of the archaeological layers on which the Kaiserthermen are built, are not considered by Ungers as stable and concluded elements in the compositional process, but are interpreted as texts that, while showing the palimpsest of the previous writings, they are never closed and defined in a unique and decisive way. Ungers writes about the city and, in this act of rewriting and transformation, reveals a new identity. The contamination between sculpture and architecture seems to have occurred. It seems that the fascinating artistic impulse, released by the incomplete cube structures of Sol LeWitt, has captured Ungers' interest, stimulating a poetic reaction in his architecture. In this sense, the synergy between *Variations of Incomplete Open Cubes* and the *Entrance to the Kaiserthermen* reveals itself as a response of form in Ungersian architecture to the stresses emitted by the progressions and serial sequences, that are the basis of the work of the American artist. In this interpretation of the project, art is seen as an open system, in which the boundaries between the different categories, between architecture and sculpture, are deliberately transgressed to arrive at a new dimension dense of meanings, correspondences, contradictions and variations, with infinite cultural and design implications.

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