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**Montage and Composition.  
The Conception of Architectural  
Space**

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## An Introduction to ATINER's Conference Paper Series

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Dr. Gregory T. Papanikos  
President  
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## **Montage and Composition. The Conception of Architectural Space**

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### **Abstract**

The aim of this paper is to connect architectural theory with the design process by exploring some underlying patterns of space organization in architecture: *‘To compose is to bring together several things to make just one* (Rogers, E.N.(1958). *Experience of architecture*, Torino: Einaudi). When we talk about “architectural composition” we refer to the combination and the union of various elements, establishing relationships among of them to give rise to a single complex system. In architecture, the practice of composing consists mainly in the union of several figures. We call this process “montage”. These figures are chosen as components of this creative process, not only because of their form, or simply referring to their geometry, even for their capacity to induce a particular behaviour of use. A montage generated by the juxtaposition of several figures becomes a synthesis. Like in the film art or in the painting, in the music and in the literature or poetry etc., a montage is a process, which follows a strict logic concerning the choice of the single elements. However, to combine them together, the montage does not exclude the option of creativity and artistic intuition. The result is a transfigured composition that takes the shape of a project, comparable to the screenplay development process, in which the general idea of a movie is acquired from the actors’ individual characters and interpretation. The creative act of composition joints certain constants and free variables. These are able to transform the montage in something else, that does not follow the original appearance. The key of this transformation is a critic and creative interpretation of individual elements arranged together. The dialectical conflict and the dynamism, that generate a completely new image, are the aspects that characterize the technique of the

montage. This technique is recognizable in the work of some international architects, such as Frank Gehry, John Hejduk, Philip Johnson, Robert Venturi, Carlo Aymonino and Costantino Dardi.

**Keywords:** Montage, Architectural Composition, Theory of Art, Architectural Design.

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## **Introduction**

This study is the result of a work done by a group of research at the Milan Polytechnic, within the Architectural Design Laboratory.

The “montage” method has been tested through educational and architectural projects, concerning the Theatre System in Milan. This theme regards, mainly, the possibility of a readjustment (according to the assumption of a "critical-conservative" restoration), an adequate reconstruction and a subsequent functional integration of some buildings and areas which are available for new construction. All these areas, located in one of the most monumental urban axes of Milan, are destined to the most important civic and cultural functions (Theatre, Museum, Library). This axis is the Larga Street placed in the southern portion of the city centre, next to the Dome Square. It connects important monumental buildings, mainly two poles located at the two ends: the monumental complex of royal Palace, which today holds a museum of modern art, and the adjacent Canobbiana Theatre, today Lyric Theatre.

Another opportunity to verify the montage method was given during the most recent project concerning the reorganization and the consolidation of the city centre of Prague. In this latter case, the subject was the design of a Memorial Museum for of the Jewish Culture.

The project site concerns the Old Town of Prague, the ancient Jewish Quarter called “Josefov Ghetto” with the cemetery and the synagogues.

Many architects of Bohemia worked in this specific issue of the museum and exhibition places in Prague. The objectives are the reorganization of the exhibition places system, through the integration, transformation and consolidation of the existing facilities. The exhibition program provides to show the social, cultural and religious aspects of the Jewish Bohemian tradition.

According to the exhibition program, the project structure of the museum considers two aspects: the path of the Jewish civilization, and the path of history of Bohemian Judaism. The critical interpretation of the “montage” technique, has guided us in the preparation of several architectural design projects, focusing on the architectural composition.

The result of our research is the development of a procedure that has a main objective: the design of an architectural project in according to the historical context and the urban regeneration.

## **Theoretical Issue**

*‘To compose is to bring together several things to make just one.’<sup>1</sup>*

When we talk about “architectural composition” we refer to the combination and the union of several elements, that establish relationships among of them to generate a single complex system. In architecture, the practice of composing consists mainly in the union of several figures. We call this process “montage”.

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<sup>1</sup> Rogers, E.N.(1958). *Experience of architecture*, Torino: Einaudi [Italian]

These figures are chosen as the components of this creative process not only because of their form, or simply referring to their geometry, but also for their capacity to induce a particular behaviour of use.

*'But several things can become just one, because among the components a relationship is established in which the components influence themselves, establishing the synthesis through a complete dialectical relationship.'*<sup>1</sup>

To compose means to relate these components, verifying them among themselves, by following a dialectic process that has a final objective: a critical synthesis in which the figures, kept in an unbreakable relationship, become an architectural program.

These figures, placed in a specific time and space become the raw material of an architectural project that begins to be conceived, designed and analysed not only like a simple idea, but even like an object of sensitive knowledge.

The practice of the composition takes place through a slow and accurate approach, a continuous progression looking for the characteristics of the architectural space.

The space is perceived as a sensitive experience, able to convey the meaning and the essence of each architectural experience seen as object of knowledge.

The technique by which these figures can turn the intuition and the idea of an architectural space into the concrete project, is the "montage". The montage is an operation that involves specific rules, such as a rational criteria, a logical order and a coherent figure, but at the same time, it contains a different degree of creativity and intuition.

The result is a transfiguration that takes the shape of a composition, in the same way as a script introduces the idea of a movie or a theatre piece where the elements are precise architectural subject, as much as the character fits the profile of the individual protagonists of the script.

A "montage" can be defined in this way, when the conflict, the collision generated by the combination of various figures gives rise to something general: a synthesis.

*'Montage performs realist functions in cases where the juxtaposition of individual pieces produces the generality, the synthesis of one's theme, that is, an image embodying the theme.'*<sup>2</sup>

The technique of "montage" is totally different from the system of a collage, because the "montage" orders the elements in a coherent sequence, determined not only by artistic or expressive references, but also even by technical criteria, which are determined by the relationship between image and space. The key

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<sup>1</sup>Rogers, E.N.(1958). *Experience of architecture*, Torino: Einaudi [Italian]

<sup>2</sup>Ejzenstein, S.M. (2004). *Problems of film direction*, Honolulu: University Press of the Pacific.



aspects of the “montage” lies in the dialectical conflict and in the dynamism of form that generate the new image. The manipulation of the figures is a process always controlled and strong-willed, but it also produces a completely new creation.

The creative act of a composition consists in recovering certain constants, such as the centrality and the longitudinal form of the space, interpreting and transforming these aspects to obtain several unusual results from the original standards .

Such manipulation, applied to certain *basic shapes* of the architecture may not necessarily be carried out in a strict manner, but in an experimentally one, through an empirical method, by trials and errors. These many attempts become a method of knowledge. The contamination of the figures, in few cases, can be carried up to the limit of the *chaotic*, in order to achieve that synthesis between expressions and behaviours.

### **Critical Approach**

To exemplify this concept, it is necessary to look at the analysis of some projects where the disassembling procedure of the "basic forms" is clearly obvious. The conflict between the old parts and new one imagined by the author is very clear in Gehry's House in Santa Monica realized in 1977 and 1978. In this case, the outer shell enclosing the old bungalow is contaminated by the inclusion of a set of shapes and volumes that undermine the expressive meaning and the technical aspect of the architecture.

In the Cabrillo Marine Museum, located in San Pedro from 1977, and in the Los Angeles Children's Museum built in 1979-'80, the ordering element of the whole composition seems to be the central courtyard, which has the task to identify a hierarchy according to the single role of the figures arranged. The dialectical conflict that takes place among the parts that compose Gehry's projects is easy understandable and is aimed towards a chaotic dimension, apparently uncontrollable.

*‘The Northon project, like the Gehry Residence, is a story. It has two contrasting elevations, one redundant (facing the beach), the other obvious (facing the street) – once again, therefore, a montage of opposite, curiously involving, as in the case of the restructuring of the work Residence in Beverly Hills (1981-84), “homages” to Louis Barragan. Architecture as a form of narration implies going beyond typological convention and, at the same time, abandoning the pursuit of Style[...] For this purpose, it is more productive to focus on the first design for the house for a film director in Santa Monica (1980-81), the Lewis Residence, and above all, the Winton Guest House in Wayzata, Minnesota (1982-87). In the latter example, the premises developed in the Ghery Residence in Santa Monica are taken to their logical conclusion. Naturally., as a plan*

*composed of irregular geometric figures grouped around a slightly deformed central nucleus. The entire composition revolves around this theme: the deformation is reworked in a surprising number of variations, involving the corners, the axes of communication, the opening, the enclosures of the rooms...<sup>1</sup>.*

Perhaps, in this case, we can define this operation a real architectural scandal, meaning by the term *scandal* the breakdown taken it to the extreme, and the re-composition into something totally different. This apparently chaotic montage refers to the concept of film editing montage expressed by Pasolini:

*'The most expressive moments in a movie are the "insistences" of the shots and of the editing rhythms, whose structural realism ... is charged through the abnormal length of a shot or a filming time, until it explodes in a sort of technical scandal.'*

The scandal in Gehry's works is not that they can apparently seem chaotic, confused, disordered, but that the idea of residence, museum, or school is completely dismembered. Only by reconstructing the sense of space, it is restored following precise rules and orders.

The dialectic of opposites is also evident in the work of John Hejduk, where the concepts of form and function, content and symbol, collide until blowing into a synthesis. In Wall House 3 Hejduk shows a dialectic of opposites like in the previous projects.

*'But now these opposite, the new elements, have a different nature: the opposites of form have become opposing concepts. The architectural change will make itself at once for, although the elements of form remain the same, there is now a search for meaning, a desire to represent a transcendent, universal reality, that was not there before.'<sup>2</sup>*

The work done for ¼ Hose D, highlights the will of the architect to use symbols and concepts in mutual opposition.

However, these ones must abide to specific rules of composition. Each individual parts of the project is composed by independent pieces that collide but then they take shape in a single "montage" These pieces in the project are like a shot in a film:

*'The shot is by no means an element of montage. The shot is a montage cell. Just as cells in their division form a phenomenon of another order, the organism or embryo, so, on the other side of the dialectical leap from the shot, there is montage. By what, then, is*

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<sup>1</sup> Gehry, F.O. (1998). *Frank Gehry: the complete works*. New York: Monacelli Press, p.50.

<sup>2</sup> Moneo, R. (1980). *The Passion to teach*. Lotus, 27

*montage characterized and, consequently, its cell-the shot? By collision. By the conflict of two pieces in opposition to each other. By conflict. By collision.*'<sup>1</sup>

Another example of montage is the project of the Psychiatric Hospital in Mirano designed by Carlo Aymonino and Costantino Dardi, in the 1967. It recovers clearly the composition of figures, with a similar system used for the old Asklepeion of Pergamon but obviously with a several degree of individual autonomy.

In the opinion of Aymonino and Dardi, the architecture of the Asklepeion is not just a figurative chance or advantageous functional analogy (the Asklepeion was an hospital too), but it is rather a prototype and a reference for the organization of the project activities. These activities are located around a central space that focuses the promiscuity several collective and civic functions: the theatre, the high school, the thermal baths, the sanctuary, the library and the market.

The Aymonino and Dardi's project arranges the hospital structures around an empty space: the large square that belongs to the community.

The several activities are organized according to an ordered sequence, along the sides of the hospital quadrangle and with a development that reflect overlapping functions: on the lower level are located the collective functions, while on the upper levels are found the private functions and the specialized activities.

This montage of figures and activities developed from the organization of the ancient Asklepeion, includes a number of variables that are set by the strategic organization of the structure. However, many changes are possible and compatible with the original arrangement of the structure, while remaining faithful to the organization of the idea of space.

According to the layout, the hospitalization and recovery spaces consists in experimental figures, symbolically defined in their geometric form (cube, cylinder, pyramid) and structurally programmed to accept promiscuous and differentiated activities (the square, the church, surgeries and hospital stays, the boarding school and the theatre).

It's clear the relationship between this process of composition and Le Corbusier's assertion in *Défence de l'Architecture*:

*'Architecture is a phenomenon of creation which follows an order. Whoever talks of ordering talks of composing. A composition is the essence of human genius; it is there that man is architect and there indeed is the precise meaning of the word architecture.'*<sup>2</sup>

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<sup>1</sup>Ejzenstein, S.M. (2004). *Problems of film direction*. Honolulu: University Press of the Pacific.

<sup>2</sup>Le Corbusier (1929). 'Défence de l'Architecture'. In: N. Bray, A. Lessard, A. Levitt, G. Baird (1998) *Oppositions Reader: Selected Essays 1973-1984*, New York: Princeton Architectural Press.

## Results: Two Cases. Milan and Prague

Spatial relationships among buildings, able to express an idea of montage, are particularly evident in the configuration and in the role carried out by the Acropolis in the ancient city.

The famous observations of Le Corbusier and Eisenstein about the Acropolis of Athens, in this case seem to be particularly significant.

Le Corbusier wrote in *Verse une architecture* in 1923

*'It must be forgotten that the site of the Acropolis is very uneven, with considerable differences of level that were used to constitute imposing plinths for the buildings. The slightly canted angles produced rich and subtly effective views: the asymmetrical massing of the buildings creates an intense rhythm. The spectacle is massive, elastic, charged, devastating in its acuity, dominating. [...] The seeming disorder of the plan will fool only the profane. The equilibrium is not small-minded. [...] The slightly canted angles are the skilled interventions of a great stage director. [...] Its buildings are massed together through the incidence of their multiple planes. [...] And because they are outside this driving axis, the Parthenon at right and the Erectheuni at left, you have the good fortune to see them in three-quarter in their whole physiognomy. Don't put all architectural things on axis, for they will be like so many people talking at once.'*<sup>1</sup>

In 1937, Eisenstein, referring to the observations of Choisy, who defined Athenian Acropolis as the finest example of montage, talked about the picture composition and the movie-montage. He described the rules that are the basis of the optical symmetry, of the viewing angle, and the importance of asymmetrical balance.

He also considered the combination in sequence of the shots, and described those basic categories of cinema, but in the same way of the architecture: rhythm, time and movement.

By adopting the considerations of Le Corbusier and Eisenstein, we tested a design procedure mainly based on the practice of montage as a method of knowledge and figurative experimentation.

According to this approach, some projects are presented as examples to specific case studies. These projects are processed like experimental tests of the developed research line.

As we said before, the first context is related to the central area of Milan. The theme is the public building, especially considered in relation to the consolidation of the cultural system of the city (Theatre, Museum, Library). In this case the technique of montage helped us to investigate the susceptibility of

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<sup>1</sup>Le Corbusier (2008). *Toward an architecture*. Translation by John Goodman, London: Frances Lincoln Ltd.

the "public building" to become a cornerstone of the settlement proliferation of metropolitan conurbation.

The topic of the project concerns the creation of an experimental Theatre, with workshops, practice rooms, classrooms and expositive spaces directly connected to the *Teatro della Canobbiana*.

In line with the compositional point of view, the project represents an experiment of the possible variations of some figures and types, taken as a reference. The projects show how the different components, related each to each other, are verified accordance with a dialectical process.

The main object of this practice is the development of a prototype, a feasibility study that accesses the consistency between the program of activities and the formal results.

A central covered courtyard, at the same time an urban square, and a theatre audience, contains a metal frame, designed to accommodate on multiple orders, 'boxes' made up of metal cubes, leaving the parterre. These cubes can be shifted by machines, which allow changing arrangements, in according to the needs of the theatrical experimentation.

The court is provided with a sliding roof, made by hinged flaps, which slide by packaging each to each other. This kind of square-air theatre is similar to the scheme derived from the Elizabethan theatre.

The 'stages', placed in the area lying behind, between the new building and the *Royal Palace*, define a particular space used for outdoor performances.

The side on Pecorari street includes some workshops-studio halls, in the Royal Palace street there are glazed curtain walls, placed among growing piloties towards *Larga street*. These elements define different exhibition spaces, in turn surmounted by classroom-theatre in an increasing height, all of them accessible from the outside, through a ramp.

The other context examined is the ancient Jewish Quarter called Josefov Ghetto with the cemetery and the synagogues, in the Old Town of Prague. It is the urban area of *Staré Město* (Old Town) that runs from *Staroměstské náměstí* (Old Town Square) and reaches the vertices represented by Mikuláš, Rudolfinum and *Klášter sv. Anežky České* (the Convent with the cloister and the Church of St. Agnes of Bohemia).

The proposed theme – the exhibition space - is part of a more general reorganization and consolidation of the cultural town system. This theme has been the subject of numerous hypotheses, by suggesting several transformation projects of the old town, and today it is an issue of a wide critical debate.

The proposal is to design a museum for the Memory of Jewish Culture, connected with the Saint Agnes of Bohemia's convent cloister (*Klášter sv. Anežky České*).

The convent was founded in 1234 and recently used as exhibition centre that hosts the Czech collection of paintings and sculptures of the nineteenth century. The project should be placed in the area lately occupied by outdoor sport facilities and parking place, next to the convent, among Kozi Street, *U milosrdnyche* and *na Františku* street, near the *Vltava* River.

The museum shows the social, cultural, artistic, and religious aspects of the Jewish story. Generally the Jewish Museum is divided into two courses in relation between them, but at the same time distinct: the Tour of Judaism (JT) and the Historical Tour (HT).

The Tour of Judaism is an integral part of the Museum, it is placed at the beginning of the journey so that the visitor can immediately satisfy basic questions and receive some cognitive tools to the Historic Tour set out on a way it is possible to limit the itinerary to this single section.

The project is divided into two parts. The second one, dealing with the historical tour, is solved through a circular central plan. The first one, the Tour of Judaism, consists on a oval central plan. The two spaces are both joint by a ramp that leads into the historical part of the context, the St. Agnes' cloister. This course divides the exhibition space from the other facilities, classrooms, library and auditorium.

In this case the composition gives the idea of a precarious structure, made of fragments that are combined in a free assembly of the figures.

## **Conclusion**

The importance of this method is to consider the architectural project as an object of knowledge and a real creative act. The operational viability of the architectural project necessarily involves the culture of the architect and his creative ability.

The research developed in this field, proposes an approach to the project starting at the bottom, by the individual experience and knowledge.

In this study, the figures become operational elements and creative items, letting out their mechanical character and their susceptibility to modelling, while showing, their aptitude to a precise idea of space, still latent but already intuited.

These figures, in the practice of design, are no longer simply references nor of a pure academicism. They are called to regenerate the main idea of space with other features, as they are manipulated and used freely to take charge of the new role assigned to them.

Using the technique of montage, quite similar to that experienced in movies and theatre, the project is approached as a concrete fact that can lower an intuition in a precise time and space, by involving in this process the viewer who inevitably becomes the beneficiary of the architectural work.

The choice of appropriate architectural references, allows considering the montage as an integral part of existing structures and a part closely linked to the urban context.

The montage reflects a particular culture and a history, resonating not only with the physical environment but also with the figurative culture of the context.

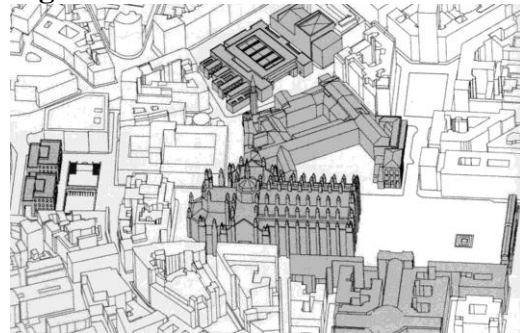
The use of this references for the definition of an architectural prototype, means looking at the tradition and culture of the architecture not only for what they were in the past, but, above all, for what they could be in the present. To adopting this experimental procedure it doesn't mean to be innovators or traditionalists. On the contrary, it is necessary to be free from the constraints of the past and of the present, to be involved in the creative experience of the architectural process.

**Figures 1-3. L.Cattani, M.Orsi, *Experimental theatre in Via Larga, Milan***

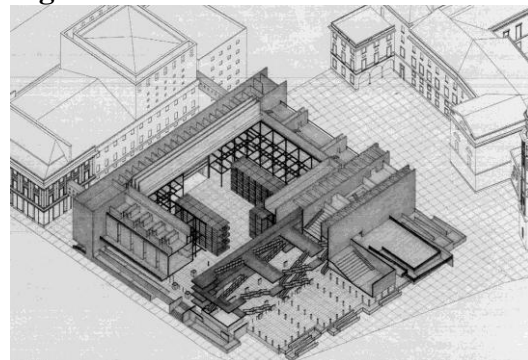
**Figure 1. Model**



**Figure 2. 3d View**



**Figure 3. 3D View**

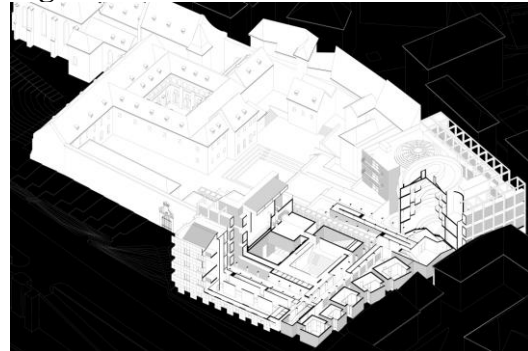


**Figures 4-7. A.Tregnago, M.Piatti, *Jewish Museum in Prague***

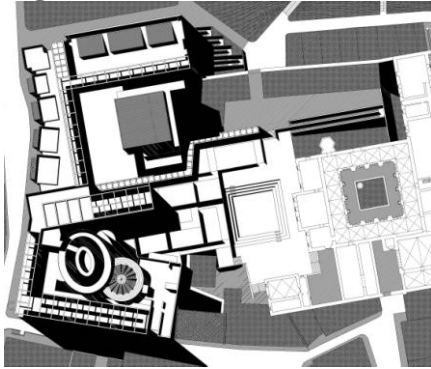
**Figure 4. Plan**



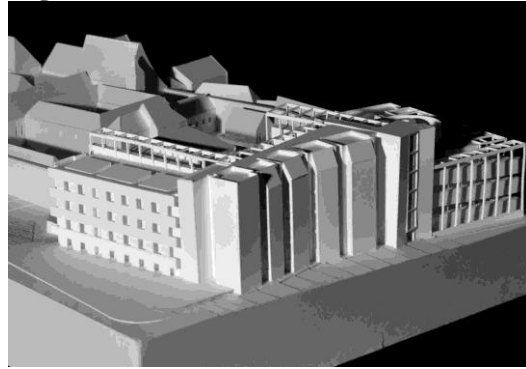
**Figure 5. 3D View**



**Figure 6. Plan**



**Figure 7. Model**



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