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**URBAN PLANNING AS MOTIVATION TOOL IN FIRST YEAR TEACHING  
METHODOLOGY. THE URBAN CONTEXT AN INTRODUCTIVE EDUCATIONAL  
PROGRAM**

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## **URBAN PLANNING AS MOTIVATION TOOL IN FIRST YEAR TEACHING METHODOLOGY. THE URBAN CONTEXT AN INTRODUCTIVE EDUCATIONAL PROGRAM**

### **abstract**

The transition from the secondary School to the university forces the students to abandon the learning for accumulation of notions to join a new kind of learning founded upon the reach of conclusions that request the assumption of responsibility.

At general level the university teacher has to activate didactic tools in order to stimulate the students not so much to the attainment of a formal result, as for the arrangement of a method of job able to sustain the students themselves in the search of rational planning choice. The presupposition of this orientation is to intend the project as form of knowledge and to give greater importance to not shared from them but exclusively in conformity with the wishes of the teacher.

The students often looks for a "master" to which to refer: an architect or a cultural trend can furnish solutions already experimented in the reality. In some cases this figures can be the teacher that imposes the "do as I do". This attitude is proper of the "atelier" and is founded upon the technique of the imitation of a model. Planning "on model" by itself is not negative. To imitate is one of the more fertile processes of learning provided that there is a critical judgment that prevents the uncritical assumption of the reference. It is clear, that the copy of those architectures that, in the actual outline of the contemporary architecture, found their own value on the wish to surprise, is a little educational especially in the Italian schools. It seems more profit to apply a didactic method founded upon the concept of type, or rather on the understanding of those invariant formal that are at the base of the relationship between organization of the space and form of the built one.

In this circle of problems the project of architecture is set to the scale of the city: the planning becomes more complex since besides the functional program and the linguistic elements it have to faces the problems of the context.

Also in this case can be helpful the type declined to the settlement scale. It is part of a whole tools of control of the urban shape that can constitute a fundamental methodological base for the didactics of the first years.

### **Key words**

**Urban planning, method, type, urban shape, rule**

### **full text**

These notes intend to introduce some reflections on the relationships between the urban planning and training design

The transition from the secondary School to the university forces the students to abandon the learning for accumulation of notions to join a new kind of learning founded upon the reach of conclusions that request the assumption of responsibility.

Among the biggest problems that a professor has to face there is the motivation of the students; only few work with seriousness and interest; particularly three categories of students can be identified

- a) people who appear motivated and that are able to assimilate, in critic way, the contents of the teaching.
- b) people who appear not much motivated and that follow the teaching in passive way merely doing how proposed by the professor;
- c) people who appear not motivated and not interested in the contents of teaching

One of the most frequent causes of this is due the scarce knowledge of the architecture in the superior schools and to the general separation between the architectural culture and the society. This in Italy is a serious problem.

In the Faculties of Architecture in Milan, different schools of thinking can be recognized; each of them has planned the teaching in different way that depend on the traditions of the same school.

Some of these schools make reference to famous architects as Aldo Rossi and Giorgio Grassi. They are recognizable for a strong theoretical system and for a characteristic architectural language that constitutes an evolution of the master's one.

In these schools the technique of teaching is the one practised in an atelier: a working group recognizes and shares a certain way of working; this way becomes the character of the school and the students are kept to conform themselves to it. It is evident that in these atelier should enter only those people that are deeply interested to that particular architecture.

This system is risky; a lazy student, not very skilled, or a little motivated one, that has happened by chance in a group of job of matrix grassiana or rossiana, will be induced to copy some formal models; the result will be a colorless and opaque architectures from which the student will probably learned very little.

In other schools of thinking which are less tied up to the work of a famous character, less rigid techniques of teaching are developed; perhaps they are less recognizable but surely they will able to mark a path, within the student can acquire a progressive autonomy.

The architecture design has a formative value if it is demonstrable, if the ideas that contains could be shared and if it founds itself on a method<sup>1</sup>. Surely the architecture project must have done well; it can be also beautiful but this is not essential. It is important instead that it prove to have understood the order of the problems that must be faced and that it explain how to faces them. It doesn't be useful impose to the student of the pre-arranged design choice except in serious cases; the control of the professor doesn't exclude a certain degree of autonomy that depends on student's maturity. This autonomy, progressively has to consolidate, with the progress of educational career, in order to allow a easiest getting in the of the job.

The project is a cultural matter; the design choices has to be rationally motivated and their succession has to be coherent. I believe that the architecture project doesn't not concern the liberation of the creativeness. This is a personal problem of the planner; it doesn't regards the society; everybody live in the architecture.

According to a good tradition of the Italian school, of Milan particularly, of which one of the most representative exponents has been Franco Albini, it is not possible to plan without rules. The rules are not a bureaucratic norm but something that make resitance to the individual will of the planner and forces him to find a strong relationship with reality.

The same Franco Albini said that true freedom is in the voluntary assumption of a rules.

It is useful to remember the definition of project that is proposed to the students: the project is a rational process that aim to reach a certain objective under shortage of resources; this definition is reported to the studies of Biagio Garzena<sup>2</sup>. He believed that shortage of resources influences the project operations limiting them for number and effectiveness; then it is necessary to set some rules to make the project concrete in comparison to shortage of resources.

During Degree in Sciences of the architecture of the Faculty of Architecture and Society, in the seat of Mantua, the students of the third year of course for the first time face a project to the settlement scale. The project themes proposed are relatively simple but they require, in comparison with preceding experiences, a rise in scale and the ability to control the relationship among the buildings. The circle of reference is not a single building anymore but a part of the city and its transformations.

The circle of reference is not the single building but a part of city and its transformations anymore. The urban project stimulates the student proposing a greater complexity.

The student doesn't project simply a building. He must define the relationships between the buildings and the context, to plan the form of the open space and to justify with objective rules the final choices.

This didactic method is founded on the conviction that setting the student in front of the planning experience has the advantage to force a direct comparison with the difficulties of the urban project.

Faced with to a greater complexity the student is invited to "to react" predisposing all the project experimentations necessary to reach an acceptable result<sup>3</sup>. It is useful to underline as the objective of the teaching don't aim to get a final product that respect the program proposed by the teacher; the fundamental purpose is to make the student to understand that the project is a process of knowledge founded on choices that must be demonstrated. What is important is not the final product but the way the student has reached it.

The didactics organization is articulated in three levels:

- cycle of lessons ex-cathedra held by a team of teachers;
- development of the projects in the classroom through interviews with the single working group
- seminars of collective evaluation of the state of advancement of the work.

It is very important the experimental approach that characterizes this method of teaching. An only point of view about architecture from which rules are deducible doesn't exist. The teacher is a learner more experienced than directs a research works thanks to his experience.

The student often looks for a "master" to which refers: an architect or a cultural trend can furnish solutions already experimented in the reality. In some cases this figures can be the professor that imposes the "do as I do". This attitude belongs to the "atelier" and is founded upon the technique of the imitation of a model. Planning on model by itself is not negative. To imitate is one of the more fertile processes of learning, on condition that there is a critical judgment that prevents the uncritical assumption of the reference. The main point is that the model should not imposed and above all should not be univocal. Of course the professor has to steer the searching of a reference.

In particular way students of first years courses often choose references only for their exterior shape.

In the actual panorama of the contemporary architecture the presence of a lot of international stars that intend the architecture as a media show can be a negative example.

In fact the appeal, of design practices that refuse the context, characterized by radically antithetical forms to euclidean geometry, justified often by virtual references to the flows of information is next to formalism.

A good way to solve problem is a typological approach to the project.

The training to a typological approach is focused on the critical and comparative study of the formal structures; according to Giulio Argan it is integral part of the project invention, because it allows to link the determination of new formal structures to a superimposition of project solutions, tested and criticizes by the overcoming of time.

Type is a greek word; his literal meaning comes from the verb "to beat" and regards the impression of coins. Architectural theorists use the word type to "distinguish between kinds of building"<sup>4</sup>

The concept of type allows a correct awareness of the history or rather the ability to understand which of the lot of traces, leaved by the time, could have continuity or contradiction. The type turns the time into a "operable material " for the architecture, and allow a "talk with the history", in order to make a comparison between different experiences.

The base of the concept of type is the knowledge that one has already acquired in previous time: the character of formal invariant in a building becomes known, because has already known in other buildings, whose knowledge put a date formal structure in one determined category.

The understanding of the concept of type it is not simple for the students.

The most remarkable problem is to understand what is the invariant form or rather the typological nucleus.

A frequent and very useful exercise is to redraw some excellent examples asking an interpretation of the project. Different keys of reading can be suggested, but usually a middle level student quickly succeeds to understand what is the typological nucleus, that he can personally elaborate. A further development of this exercise is the comparison among different buildings united by the same use of the space. This exercise is very useful in searching for references that does not mean, of course recognize analogies of functional character or generic formal similarity.

What makes a reference valid they are the "structural connections" that they go beyond the practical use of a manufactured article and they concern its spatial conception.

To the urban scale the concept of type is useful for understanding the relationship between the permanencies and variations in the articulation of the urban spaces. This study is effected in a empirical way through a graphic representation.

There are some tools to make practical the use of the historical knowledges in the project of architecture.

These tools have been defined by some lines of search on which many have worked for a long time in critical way starting from the searches of Saverio Muratori, Aldo Rossi, Carlo Aymonino and Ernesto Nathan Rogers. Rogers has been a great teacher for the Milanese school: he spoke of "environmental pre-existence"<sup>5</sup> intending to say that the environment was deeply bound to the historical trials, considered as a dynamic reality on which the project could intervene.

We propose to the students the elaboration of a draw in which the studies of physical character of the urban shape explain the relationships between the project and the part of city.

These elaborations was defined by Raffaele Pugliese<sup>6</sup> (1997) and he has used them for a long time in didactic activities; this studies link to research activity to the design training and reconsider the relationships between building typology and urban morphology. They has abandoned the association type- building scale and form- city scale, theorized by many, among which Carlo Aymonino, assuming as objective instead the search of the meaning of the urban space based on the study of the invariant elements of the settlement texture

The student has to individualize the constitutive factors of the urban shape from which infer some rules of project; the elements that must be recognized are:

### **Settlement evolution**

In order to decide the objectives and the rules it is essential to know the reality of the city; this last is constituted by many aspects: the physical order, the partner-economic aspects, the normative urbanism. But one of the most important elements are the history, agreement as reconstruction of the settlement evolution of one determined part of the city. The history doesn't directly give operational solutions; it gives a system of knowledge that as reference can be used to compare, with how much design choices with has already been done.

### **Primary facts**

The primary facts are buildings, complexes of buildings or open spaces that have had a very remarkable role in the conformation of the urban form. The clearest case are the monuments

or all building of exceptional character with a symbolic meaning and representative value. Aldo Rossi in the sixties had distinguished the primary elements and the area: the first ones in comparison to the second assume a character of permanence in the evolution of the city and between them they have a particular role the monuments. Today we believe that done emergent and weaving are complementary and both determine the characters and identity of the configuration of the city. They have peer dignity and they are bound by a relationship of mutual interdependence: the existence of the emergency is justified from the fabric and vice versa.

The primary facts are therefore all the building that can modify the urban scene, or that have a very important role towards the collectivity influencing the way of living. An example of this type are great shopping malls.

### **Axis and geometries of urban texture**

Geometries and axis have a character of permanence and they contribute to the identification of the hierarchies among built and open space.

They allow to recognize the geometric organization of the urban fabric; in the historical city they are first of all constituted from the roads and from the perimeter of the blocks.

### **Settlement Types**

The settlement rules that control the organization of the urban texture can be classified, since the spatial structures found in a determined urban order can be connected with others, already known, or rather the spatial archetypes of the point, of the surface and of the line<sup>7</sup>. The settlement types allow to verify if the relationships among the road shape and the way with which the built volumes organize him in the space have characters of permanence or less. The building type is an shape invariant that regards a single building, expression of an individual wish; in the settlement type the invariant element is the space.

The settlement types are therefore the result of the interrelation among form of the blocks, recognizable road layouts, disposition in plan of the built volumes and consequent form of the open space. They represents the way according to which the building bodies organize themselves in the space establishing some mutual relationships.

Following I present some projects that face the theme of the urban architecture experimenting solutions founded on the knowledge of the place and on the concept type. The places of project are in the city of Mantua that for its particular historical characters it is particularly interesting for activity of project that assumes as fundamental the study of the relationships with the places.

All The projects was developed in the Laboratorio di Progettazione Architettonica 3, Facoltà di Architettura e Società, Sede di Mantova. Professor, Marco Lucchini (coordinator), Angelo Volpi. Teaching assistant Francesca Covoni, Alice Sighinolfi

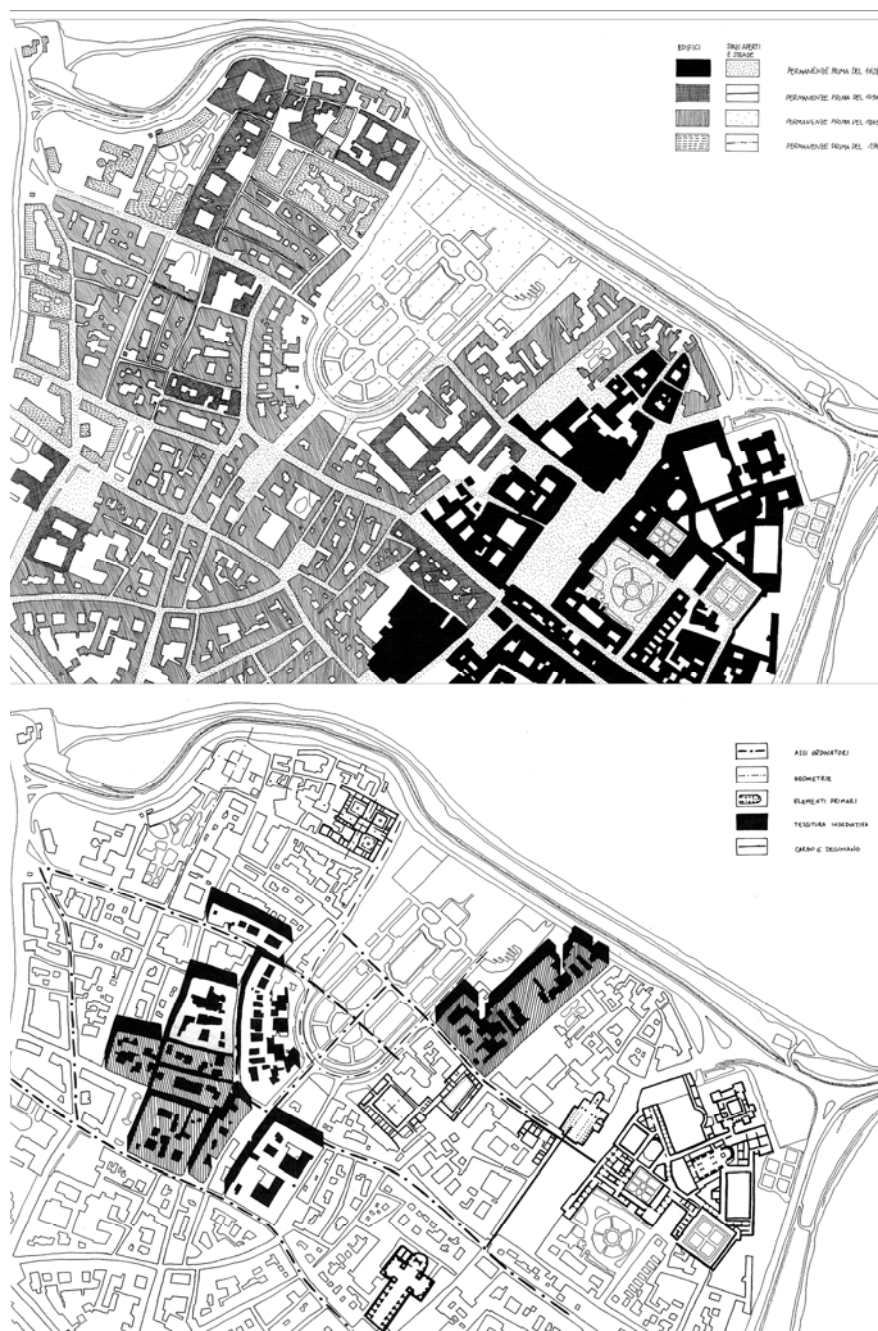


Figura 1: Mantova, piazza Virgiliana studio del luogo

**Project by Alberto Bertini and Luca Borghi.**

The project is located in an area of the city of Mantua located to the borders of the fabric it compacts in proximity of a great area dismantled industrial area known as ex Ceramics. The project area is a block made free by a process of demolition in which some archaeological rests has been discovered; they are an interesting stimulus for the project. The students have configured a court system that proposes some analogies with the conventual pre-existence in the zone. The settlement order exploits some alignments of the context in order to heal the borders of the road. The new construction destined to residence for students and hostel overlaps to the archaeological rests respecting the integrity of it exposing them as traces of the past of the city. Toward the factory of the ex Ceramics the students rotate the body of factory destined to contain a multifunction room; in this way a new space public of contained

measure shapes him that anticipates the front of the residence for students and it emphasizes the urban role of it.



**Figura 2: Mantova, via Gradaro, progettodi Alberto Bertini e Luca Borghi**

### **Project by Michele Cicala and Elena Cupolo**

This project in the same area experiments a breakup of the continuous curtain, opening the space and giving shape to a court to with a public role.

The planning of the housing cells for students has been effected on the base of a typological study based on a contribution of a specialized teacher in this theme.



**Figura 3: Mantova, via Gradaro, progetto di Michele Cicala e Elena Cupolo**

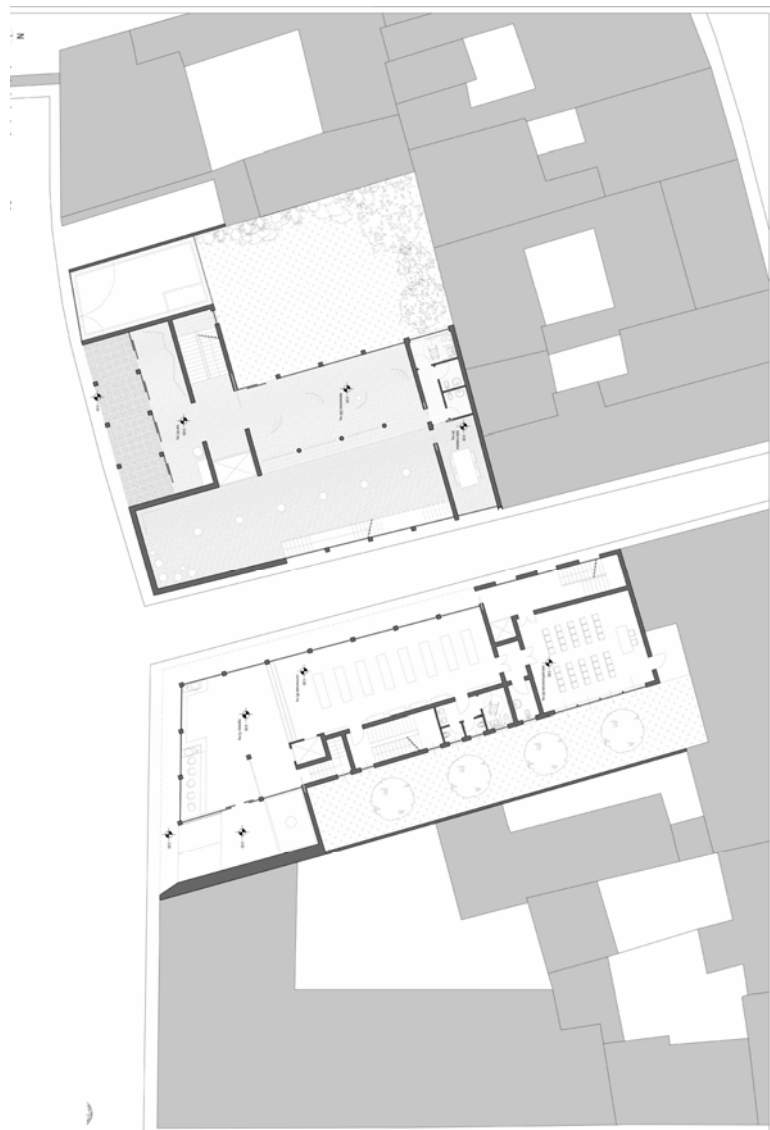
### **Project by Samuele Squassabia.**

This project concerns an area in piazza Virgiliana near to the monumental part of the city. In the plaza an amphitheater then demolished rosed until the 18<sup>th</sup> century; so the borders of the plaza were the backs of the great building. The project foresaw the demolition of two buildings clearly placed to the entry of the plaza incongruous for scale and language with the mantua context.

The student has heal the continuous curtain; this operation in many cases in Mantua is the wisest choice. The project is assembled working on the organization of the inside space of the buildings destined to bookstore and gallery of art, The interior space is focused on voids in order to connect among them the exhibition spaces.

The configuration of the prospects has used some references autonomously chosen by the student; the most important elements have been integrated with the rules, in particular alignments and heights, inferred by the context.

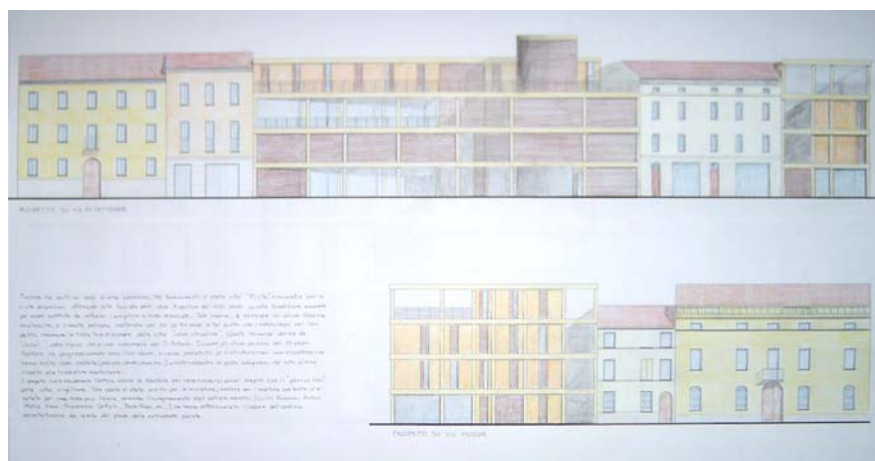
The language is influenced by the charm of the architectures characterized by light and transparent wraps.



**Figura 4: Mantova piazza Virgiliana, progetto di Samuele Squassabia**

### **Project by Giulio Girondi and Valentina dall'Oglio**

The theme of planning consists in the redesign a part of the historical center of the city of Mantua, through diffused interventions, capillary and coordinated. The objective is to improve the urban quality of the context through punctual operations as the demolition and substitution of incongruous and inadequate buildings. Every student has developed more interventions among them coordinated relatively interesting a part of wide city. The destinations of use include the residence, the activities commercial qualified and tertiary advances. The project confirms the morphology of the existing city through a continuous curtain.



**Figura 5: Mantova, via XX settembre, progetto di Giulio Girondi e Valentina Dall'Oglio**

<sup>1</sup> Grassi, G (1991), *Un parere sulla scuola*, Quaderni del Dipartimento di Progettazione dell'Architettura n. 12 p 87.

<sup>2</sup> Biagio Garzena (1970), *Lesson of June 10 th 1970*, typed.

<sup>3</sup> Matilde Baffa, Remo Dorigati, Marina Molon, Gianni Ottolini, Raffaele Pugliese, Paola Vidulli (1987), *Didattica dei primi anni. Unità ambientali, alloggi organismi abitativi*, Quaderni del Dipartimento di Progettazione dell'Architettura n. 4.

<sup>4</sup> Anthony Vidler (1988), *The idea of type: the transformation of the Academic ideal, 1750-1830*, *Oppositions* reader: select readings from a journal for ideas and criticism in architecture 1973-84, New York Princeton Architectural press, New York pp. 450-452

<sup>5</sup> Ernesto Nathan Rogers (1964), *Presentazione del corso di Storia dell'Architettura Moderna*, Politecnico di Milano A.A. 1964/65, E. N. Rogers, *Il senso della storia*, F. Bucci e R. Neri (1999) (editors), Unicopli, Milano, p. 16

<sup>6</sup> Raffaele Pugliese (1997), *La città e la ragione*, Unicopli, Milano IT

<sup>7</sup> Gianni Ottolini (1987), *Architettura vivente*, Quaderni del Dipartimento di Progettazione n. 5.