

FORUM A+P 13

Periodik Shkencor për Arkitekturën dhe Planifikimin Urban

2013

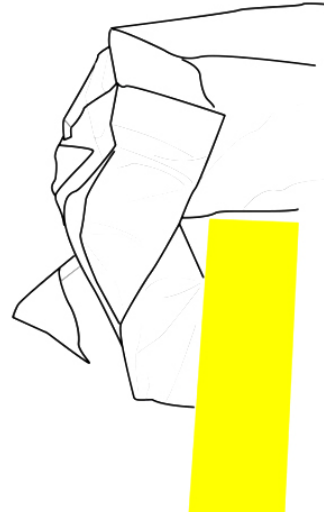
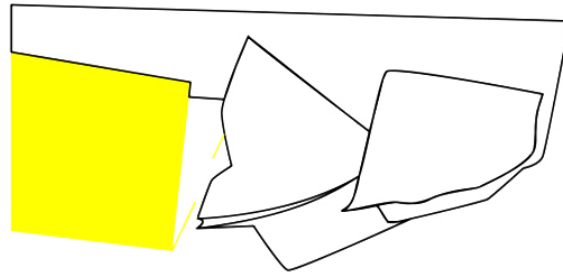
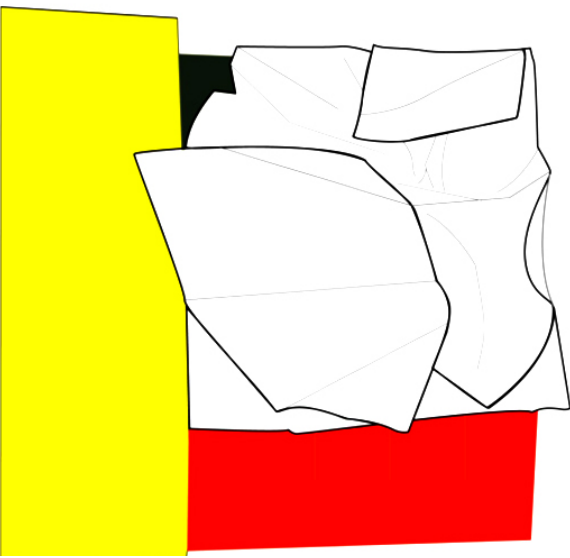


EDUCATION IN/BY ARCHITECTURE

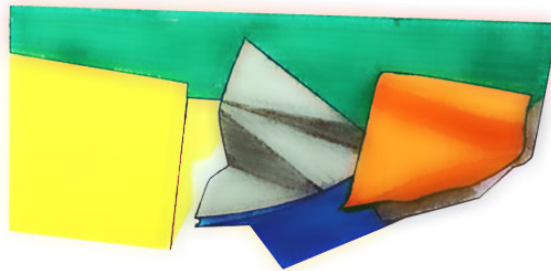
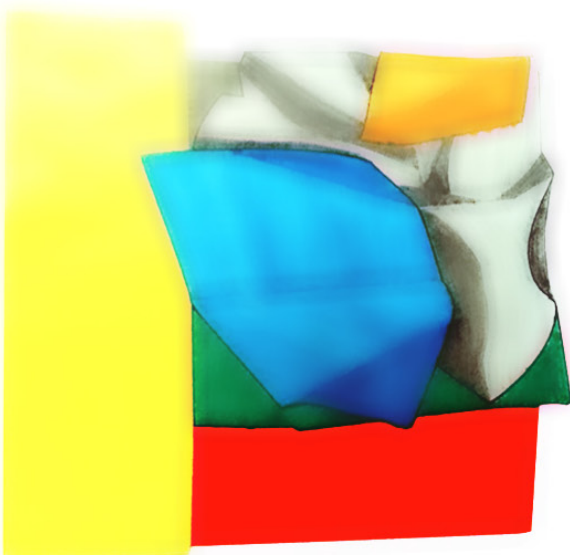
ARCHITECTURE SCHOOLS SHOULD BE DISSOLVED UNLESS THEY... *

EDUCATION IN ARCHITECTURE 13

- ... abandon mono-vocationalism
After the collapse of the construction bubble, architecture schools must prepare their graduates to apply design thinking and architectural intelligence in sectors beyond just the property / construction sector.
- ... promote informed generalism
Invite as much knowledge as possible from other disciplines, such as economics, engineering, agriculture, politics, activism, geography, psychology, sociology, computing... Architecture is an amalgam of all these things.
- ... encourage students who want to openly debate what is happening.
Education is amoral at best, immoral at worst.
- ... realise that the game has changed.
Graduates must now leave with more than just a portfolio of beautifully drawn imaginary buildings, designed to take to interviews at architecture firms.
- ... change the measures of success.
Design prizes for drawing trout farms on mars. There is more than one definition of success.
- ... responsibility.
Architecture is not art. Art is art. Design affects more than cultural appearances, design is more than social 'engagement'. Architecture is always political.
- ... shed view of architecture and design.
Architecture is not only about objects and appearances, design is about the human ability to plan and produce things.
- ... their own education.
Architecture is not just about our life's work that we are teaching.
- ... act as incubators for designers, architects and ideas they produce.
Supporting people and projects after they have graduated.
- ... become fablabs and drop-in institutions.
Provide intellectual forums and workshop facilities for would-be designers, inventors and activists who wish to attend the school for 7 minutes, 7 hours, 7 weeks or 7 months - not just those who wish to attend for 7 years.
- ... open their students and the public to an understanding of architecture's economics and politics.
Not just its past and present practice.
- ... act as agents for positive change in their host cities.
Why do those who live next door to architecture schools never set foot inside them?
- ... see their role as producing not just each new generation of graduates but also each new generation of ideas.
- ... become open clubs (peer to peer social networks) for their students and alumni.
A school is not really a building, it is a network of people. It should have its doors for you and your ideas.
- ... seek to provide access to role models from diverse backgrounds.
Architecture is still very much a profession. It's not just about imagination all the time.



Florent Grainca, 3rd year Architecture Studio, 2011-2012



Studio and Theory of Architecture

an ambience for architectural education

Antonino Di Raimo

Painting functions in two dimensions, even if it can suggest three or four. Sculpture works in three dimensions, but man remains apart, looking on from the outside. Architecture, however, is like a great hollowed-out sculpture which man enters and apprehends by moving about within it.

Bruno Zevi, *Saper vedere l'architettura*, 1948

A well-formed mind is a mind able to organize knowledge, thereby avoiding sterile accumulation.

Edgar Morin, *La Testa ben Fatta*, 2000

Entrance

The sheets of our classroom are overflowing: outlined sketches of various scaled floor plans are accumulating on the desks. Sketches that are intended to present different forms, volumes, or rather several attempts to outline a space are hanging on the walls. Some cardboard models lie on the ground, waiting for descriptions and explanatory words.

The discussion continuously turns to architectural design proposals: it is about the value of a project and the construction of a critical perspective; these are the most debated issues within the class...Yes: we are in an architecture design class, a place where a thought should be transformed

into a space; that's why it should be the most democratic place in the Faculty of Architecture. In this place prejudice (what you already think before knowing and experiencing things) is deconstructed in order to create a suitable space for an authentic thought: by judging the projects made by others you learn how to judge your own. It is also a place that rarely can exist within a reality, which has not been founded on the difficult concept of education.

A student who explains his/her proposal, is surrounded by a small crowd. He/she alternates languages switching between English and Albanian, and sometimes even Italian; that's why you never stop being grateful to this country. In the student's voice you can hear a tremor. It is so necessary when you design to be insecure; the best designs are never-ending hypotheses. Or on the opposite side, in the same voice you can perceive a certain pride coming from the naive but honest belief that the presented idea has never been seen on this planet. Nevertheless, the student tries to convey his/her ideas on architecture, to the listener; he/she seems to be confident in the approval of others, especially the professors. Despite paradoxically the



Cv:

Antonino Di Raimo, architect, received a Doctoral Degree in Architecture Design by University of Rome, La Sapienza, where he also has been teaching architecture design. His main area of research focuses on the relations between human body and architecture space, according to an information paradigm infused by embodied cognitive science framework. He has been part of various international architecture design competition, such as the FEIDAD - Far Eastern International Digital Architectural Design Competition where he has been awarded among the top 10s. As GAI funded scholar at Flux Laboratory in Geneva, from the Italian Ministry of Culture, he developed a research project about space, dance, and architecture. He has been writing for various trade magazines, such as 'L'Architetto Italiano', 'Metamorfosi-Quaderni di Architettura', and contributing with various articles to the book 'Architettura and Information Technology' (A. Saggio editor). He was speaker at ACADIA 2010 Conference, Life in formation, Cooper Union University in NY. In 2012 he received the TRIMO International Research Award for his PhD research. Since September 2012 he is Dean of the Faculty of Architecture and Design (FAD) at Polis University, Tirana.

project coming from a personal world, it has to be justified within the requests of the program, which is almost always a public, social and civic matter.

It is so, because the project normally originates from an outside world demand, steeped in needs and services that it has to intercept: from the smallest artifact to the city scale and to the territory, this collection has historically been considered a civilization paradigm, a model of coexistence and complex human organization. Our student then, almost following a Palladian path, experiences starting with an individual unit, coming to the multiplicity of associations and aggregations, and finally up to embracing the entire territory. This means a conquering of knowledge that through the instruments obtained during the University training, will allow students to change those conditions. Students learn to know the intimate nature of built things.

Space

Tirana, Albania: every day we observe and experience this city that can be understood when you think of a teenager; a city projected like a crazy splint on its own future and for this reason, a city which needs to listen and summarize its past under a certain sense of urgency.

We are at Polis University, along the new Tirana Durres highway, where one of the more European buildings and perhaps the most successful in Tirana is becoming the scenario of a new courageous and innovative thinking. We are in the Studio class, which for us architects is a crucial place; the heart of the whole experience related to the educational process in

architecture, with its specific pros and cons, and with its infinite variations. This place still occupies a special role in the curriculum of the Faculty of Architecture and Design.

The Studio normally runs from the first to the fourth year, with increasing levels of complexity regarding the proposed projects, allowing students to develop their proposals, gradually reaching deeper levels of understanding. More than a course, the Studio is a paradigm within the whole architecture learning experience. In the field's literature it has often described as arising from the French Ecole des Beaux Arts in Paris (Lackney, 99), which has been meaningful based on the Atelier concept, although integrated with some elements deriving from the BauHaus educational system. Firstly in the Studio a culture of criticism is built (Kuhn, 2001) in a way that the past experience can constitute a tradition: it is about the assignment of a task, that so-called design problem, accompanied by a series of lectures and successive stages of projects review: from the pin-up model to the desk-critiques, to the final project presentation aimed at building through significant interactions what is recognized to be quality in architecture. By observing different Studios, led by different professors, we could find several learning models and even many different cognitive styles. We find an updated profile of the variety in the Architecture Studio in Salama, who is clearly wondering at the end of his survey if the Studio educators take into consideration the development of other skills that go beyond the simple idea of modeling and representing buildings

(Salama, 1995).

It can be easily imagined that there is neither a cognitive style nor a pedagogical model without a clear theoretical approach intended to be the origin of the Studio process. However, we should also question how much a model or a cognitive style is fully able to intercept and interact with those that belong to students. Because of its abstract components linked more to the theory than to the practice of architecture, the Studio is often criticized; in the writer's opinion, the Studio, from its intellectual characterization, derives its driving force and its originality, and finally its deepest educational reasons.

But before going into this discussion, we also need to ask ourselves what is being taught in Architecture Studio and what are the inherent values that this experience will provoke in the cognitive domains of architecture students; the same students who one day will find themselves architects operating in contemporary contexts within the discipline and practice of architecture, which actually branches in multiple, sometimes contradictory, directions although all cohesive through the main hypothesis that architecture is the transformation of reality.

This hypothesis is the first intellectual feature which distinguishes Studio from any other learning experience within the Faculty of Architecture: the Studio Project is always to be rooted within a context; the context itself should be adequately represented in terms of data, providing infinite models of reading and interpreting reality; then the project is a proposal about a possible transformation of the context, explained according to a system of beliefs,

paradigms and methodologies, normally linked to the baggage of the professor and further developed through the processes of conversation between him/her and the students.

The students then are supposed to recreate the real experiences of the architect; they are called to express their points of view on the contexts in order to propose transformative hypotheses in relation to the needs and the multi-dimensional structure of a social system embedded in a local context. In this way, we understand that cognitive and pedagogical models are nested in that structure that we can identify as anthropological-cultural. Certainly this course is about the promotion of a participatory observation of reality and it is undoubtedly different from the one which represents the pure scientist praxis, which is based on observing an existing phenomenon while exercising a certain detachment.

After this feature, another one follows immediately which is more technical but equally decisive: it is about teaching the proper functioning of spaces in relation to the activities that take place in them, transmitting to students the inextricable links between the logic of composition and the constructive-technological knowledge. This is a constantly shifting relationship which has been discussed over centuries in the architectural tradition. As stated by Zevi, in one of his most significant statements, quoted at the beginning of this article, architecture seems to be possible understood only within the body perceptual system, and its active co-participation with the spatial dimensions. Certainly, this is not the place to discuss space genealogy

within the architecture critical system created by Zevi, mainly derived from Wölfflin, filtered then through different philosophical mainstreams, including the fundamental one expressed by Croce. As a matter of fact we should understand how technical knowledge, purely based on objective data found in the architecture design handbooks, can be reconstructed and continuously criticized by using one of the most authentic reasons in architecture: the experience of the human body within the space. According to this idea, Studio is the place where handbook knowledge-based architecture, should be continually rethought and questioned. If the architect is first and foremost a thinker and not a mere executor, the Studio milieu is the setting of both humanistic and scientific processes which are able to mobilize architectural thoughts. The vertices of such complex processes, as is the case in every educational process, are the figures of teachers and students, and their ability to create meaningful interactions. On this point an educational approach rather than another, can play a considerable role.

Negotiation

The traditional approach in teaching Architecture Studio includes on the one hand the analytical knowledge (urban analysis, typological approach, distribution, relation between functions and techniques, etc.); on the other hand, a trend which is sometimes very strong, based on a progressive imposition of a specific architectural language on the student (the privileged one normally practiced by the professor). In this way students were often gradually infused by the professor with his/her architectural language, sometimes

to the point of turning them into a follower-proponent of the same linguistic approach as the professor. The language has always been perceived as a decisive element of the project. This description, despite its shortness, points out that learning from a professor mainly engaged in the profession, can automatically influence the students to use the same architectural language and theory, which can result in a benefit or an obstacle depending on the circumstances. Here, we want to explicitly refer to the language in architecture, because our position is that the architectural spaces are made explicit by the language itself. This statement refers to a group of Architecture Theories which focus on language as the privileged way to reach a deep understanding of architecture. Zevi's proposals then, can be read with those of Umberto Eco, or for other points of view, with those expressed by Summerson focusing on classical language, or with the much more philological proposals expressed by Tafuri. All these trends share the basic idea of the centrality of the architectural language in shaping the resulting architectural space. Nevertheless, language in architecture is still one of the most delicate topics in the contemporary critical debate. Perhaps, it has been the eruption of Deconstruction in the late eighties and the nineties, welcomed by some critics as the end of the Post-Modern period, and the dense experimentation which occurred with the appearance of the digital instrument which has emphasized the role of language in architecture as a primary topic within architectural criticism. Language, as Zevi claims, allows us to understand architecture



Paul Klee, Angelus Novus, 1920

as a mean which is able to reveal the level of justice and freedom rooted in a social consortium (Zevi, 1994). As a matter of the fact, the critical path developed by Zevi, seems to converge with the instrumentality of language in architecture: from the Organic Architecture conceptualization (Zevi, 1939), to the declaration of the seven invariants of modern language in the early seventies, language, according to Zevi, constitutes the substance embodied within the design approach able to guarantee the existence of a very clear architectural design position.

Process versus Object

In our understanding then, the Architecture Studio constitutes the par excellence place where architecture students can discover their own language

or, at least, the place where a language that they already have, could even be reset. For them language is also the place of the project development, in which creativity and constraints merge together in a battlefield, or otherwise a dance, resulting, at best, in a continuous all-encompassing construction in both the student's cognitive domain and in the project development. In this sense, a point should strongly emphasize the awareness concerning the contemporary architecture project: more than being pre-constituted into an a priori object, it is the reconstruction of a thought of transformation. Architecture is more about process even after it has been built into a physical thing.

If the so-called Information Revolution in Architecture, a recent phenomena,

among many other things, helped define the role of the computer in the generative processes, it has been only through the revival of the diagram concept, by Van Berkel and Caroline Bos on one side, and Eisenman on the other, that a renewed attention has been directed towards the architecture design process as the moment of possible synthesis of the endless solutions of a project, becoming a crucial element of the Architecture Studio. This has been mainly based on Deleuze's works, which beyond their philosophical exegesis have been used by architects to re-evaluate the role and weight of the unconscious within the creative processes allowed by computational flexibility. Nevertheless, computational or not, what is crucial is making students aware of the deep sense of the process, especially those aspects which can provide them with qualitative creative methods, as much logically open as formally structured. I believe this node, being a fundamental one in education, will also be one in the professional life of the architect.

A student then, who is at the middle-point of his/her training, say in the third year, will discover that, by introducing a new architecture within the plot of the city or the territory in order to fulfill a certain set of features, he/she will intimately change the nature of all the relationships that take place there. Our student then, learns to discover this complexity by rebuilding it in his/her own cognitive domain; he/she will also realize how impossible it is, to hold all of this information within a purely analytical approach, and remarkably, he/she discovers that the reality he/she wants to transform is profoundly dynamic,

changeable and contradictory. He/she finally discovers that there is not only a dimensional scale in architecture, but also a temporal one.

The attention we give to these processes therefore, aims to render relative the ingenuous idea about a universally valid approach in order to work out, within the Studio, the proposed architectural task. If in communication sciences the emphasis is on the ability of the speaker, an updated methodology in architecture does not consist of the imposition of a certain language by the professor, but rather offering students the more difficult but rewarding search, for their own architectural language, the one which will accompany them throughout their life as architects. The diagram, the process, as methods contaminated by constant criticism, demands the participation of the entire class, according to a retroactive dynamic conversation, like in a cybernetic framework: an interaction between professor and students able to crumble prejudices and promote cognitive concepts and extensive constructions.

In this way the emphasis on architecture as object derived from the modernist tradition and the sought-after attempt to assimilate the classical ideal of perfection through the mechanical assembly of the parts, loses its character as a generator of a certain formal anxiety. This allows students to discover the deep existence of contexts and their vibrant contradictions. They also learn to read the layers, the accidents of passing time, the shreds of formal matrices and the presence of an uncontrollable but very fragile nature. Starting at the end of the last century, it is the consciousness

of this imperfect complexity, impossible to be recoded and grasped in its entirety, which constitutes a cultural acquisition in the architecture studio. A clear sign of this acquisition is the renewed interest on landscape studies (across cultural and never-objective knowledge), to those which have considered technology-related information as a new paradigm in architecture, especially the clear statements arising from ecology which has always placed the emphasis not on objects, but rather on relations.

Uncertainty against determinacy

In the Albanian reality, what can be striking to a foreigner observing this country for the first time is the bombastic and thunderous recent settlements. This accumulating mass of fragments, the proliferation of which lacks any recognized authority and fulfills all the multiple individual needs of the moment, has shaped a recent urban image, which because of its refusal to hide its drama, triggers a certain fascination able to provoke the mind of an architect.

These are parts of the urban tissue of Tirana city, where individual initiative, and the helpless naivety of the builders, has produced incredibly overlapping constructions: recent additions encrust the units of the nowadays distant Communist past. Buildings, which seem to have a modern appearance, are aggressively replacing historical Albanian houses in Tirana, with their characteristic brick facades. Many villas of the early twentieth century, in their still visible East and West flavor, never seen elsewhere, are transformed into bars or restaurants,

where the dynamic youth of Tirana meets, giving rise to the dynamic and vibrant crowds who never cease to amaze. Towers exhibiting a vague parametric skin, distort the image offered by the city just a few months ago. If there is an Angelus Novus, the figure painted by Klee and evoked by Walter Benjamin in his Theses on the Philosophy of History as the enigmatic symbol of modernity and progress, this Angel has turned his gaze to Tirana and the Balkans only recently, and more than flying and looking back, he now is turning his gaze to the city all the time, not being able to reconstruct it within a single tragedy. The results of this step towards modernity rather than result in a suspended modernity are just uncertain. And so, Albania is still an undiscovered country and has to be yet discovered.

Demystification

At Polis University we do not try to reconstruct an urban image; rather we are in the process of seeking a new one and to do that, we need to continuously demystify traditional categories of understanding. A resilient willingness expressed by some of the founders of the school, the professors Besnik Aliaj and Sotir Dharmo among others, who have been educated in the Netherlands, the Dutch being one of the best European traditions of planning, results in the constant bounce between Architecture and Urban Design Studios. This crucial educational attitude is possible given the scale of our University and the unwavering concerns of the Polis founders, who do not believe in the orthodoxy of disciplinary separation adopted by some western institutions. There is no difference

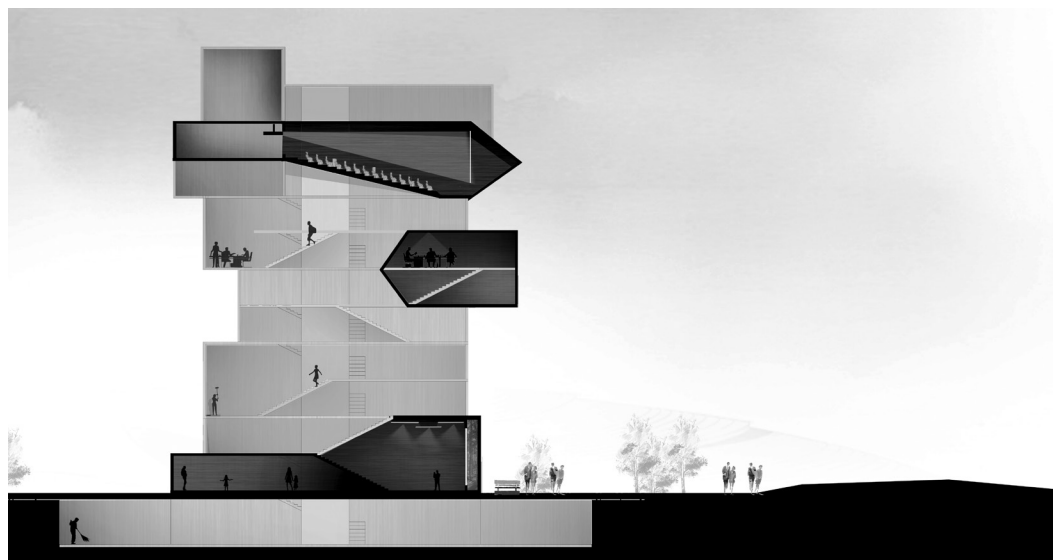
between the concepts of architecture and urban design: one can reinforce the other and vice versa. The real question is relative to the observation scale of urban phenomena; at Polis we try to experiment with the connection between planning and cultural anthropology, which ultimately results in the birth of that structured set, which we normally call city and territory.

The challenges therefore demanded by the Albanian city seem to involve a meaningful demystification of those categories that have been common in reading European cities, such as those of the historical city, the consolidate one, the modern expansion and its urban sprawl fringes. The complex and fascinating Albanian history is asking for another theory of understanding. In order to accomplish this, the philosophical category of demystification, both in teaching Architecture and in analyzing the city, is therefore crucial. I really want to briefly recall some statements by Kari Jormakka, a highly sophisticated architecture theorist, and deep philosophy expert, who only recently died, when he claimed:

Architectural theory cannot deliver the truth about architecture. Even in philosophy, the status of truth as the absolute value and goal of the investigation

has been questioned since Nietzsche. And again in the same text, he wrote: As I see it, architectural theory in general does not have a method of its own any more than philosophy, (...) Nor do I think that architectural theory has a unified object of study. (...) The lack of method and object are in fact the greatest resources of architectural theory in its critical and emancipatory function, as they imply a lack of established ossified structure.(Jormakka 2005).

Demystifying therefore, according to Jormakka's statements, also means an architectural idea related to the fundamental process of emancipation, and then, a deep reassessment of its role within a societal system and among individuals. Our student of the third year, then, rather than uncritically admiring an Archistar or the opposite, demonize the inestimable value of some contemporary architects and what they represent, will try to study and observe so as to grasp the useful and innovative values of their projects, and especially those related to architectural inventions, and go beyond the fake questions about style, or any other superficial interpretations. Architecture is a response by giving a shape to a multi-dimensional problem, and as such capable of arousing a thought.





Dea Buza, 3rd year Architecture Studio
2011-2012

Thinking against interpreting

However this coming response has to be shaped through a form and it cannot be reduced to an interpretation by recognizing its stiff components. Nor it can assure us of its success and its operational efficiency in the complexity of reality.

Analyzing architecture by recognizing the components, means conceptualizing architecture in a way that certainly makes students aware of the urban fabric's morphogenetic matrix which, in turn, informs them of a mental catalog of building types and principles of settlement, as well. The proposals as consequence of this Studio methodology are good in successfully restoring critical situations or proposing new facilities within the existing urban plot. And in fact, it's a very good tradition in the Mediterranean area, not surprisingly rooted in the Italian school, developed in particular by Aldo Rossi during the seventies and eighties and revived in the professional practice as well. Yet, this approach as necessary as it is seems, also seems to have a limited capacity when it is called to respond to the challenges of the contemporary world, to global crises and to the specificity of

local contexts in which new performances are required to construct architecture buildings. More than teaching students to collect typologies or deconstruct existing ones, reducing the architectural language to a stylistic matter, we try to propose to them an imaginative path focusing on architectural generation. In this way, the architectural value of deconstruction, becomes a particular cognitive strategy which is closer to a problem solving (Anzai and Simon 1979) procedure, than a stylistic or expressive situation.

Nevertheless, it cannot be stated yet that the process of a project can find its solution within a pure classic cognitive strategy, which admits a definite or indefinite number of solutions, which, in turn, can be described as an outcome of an algorithmic procedure. Yet, it cannot even be argued that the logical reasoning is the only valid way to trigger a creative process of architecture design.

Donald Norman, a cognitive scientist who is well known in the design field, at first affirmed the close relationship between design responses and functional needs, offering a design solution as a result of mental cognitive strategies related to

the collection of information that happens within an environment (Norman, 1998). From this functionalist approach, more recently Normann shifted its orientation to a re-evaluation in the design processes of the role of emotional processes rather than analytical: these are dealing with what he defined as a visceral level (Norman, 2004). According to him, this is an essential level, as it relates to the emotional experience of users and designers, and as such deeply involved the role of the bodily perceptual, meaning that anyone can recreate interactions between body and space, which, although very delicate, according to Norman, are strongly necessary for the meaningfulness of a designed object or space.

Developing these considerations from design to architecture, brings us to prepare our students to explore their visceral level, without falling into the ambiguity of the style or graphic design that sometimes masks architecture. So, dealing with this level results in a constant oscillation between the project's

objectives (program of activities, the site, and other constraints) and the personal, almost private, students' sensitivity. It is still a level from which language can be generated along with logical openness; it is a methodology especially based on disruption of certainties. In other words, we ask students to found their concepts not only on analytical reasoning, but also on their own emotions.

With closed eyes

During the last years, J. Gero, cognitive scientist and professor at George Mason University, has devoted a considerable amount of attention to the study of cognitive processes related to the stage of architectural design process, which results in the translation of the conceived ideas into drawings. Cognitive scientists commonly define such processes as externalization, meaning the moment where an idea is going to be articulated outside of a cognitive domain. It relates to the moment of the verbalization of an idea, sketching it, or laying it out. What is crucial is that the idea goes from the mind

Egla Harxhi, 3rd year Architecture Studio
2011-2012



to an external media.

A very interesting experiment described by Gero and his team, consists of making a group of architects designing blindfolded, according to an assigned design task; at this point some of them are allowed to use language and some of them not.

As perhaps might be guessed, being allowed to use verbal language allows the specification of the project's components in the externalization moment. Spoken language, in other words, supports the cognitive activity of the specification of things. However, Gero's experiment also shows another fact of great interest: the blindfolded architects who are not allowed to explain what they are thinking through language, become cognitive overloaded, with a perceptual activity which is almost nothing. So the experiment clearly shows, among other things, that in the case of the blindfolded drawing being perceptual activity next to nothing, the basic project is something which exists primarily in the subject's cognitive domain.

Based on this conviction, in the last two years at Polis, I conducted two experiments within the III year Architecture Studio framework; experiments, I would say, of pure externalization without feedback. However, these experiments can only happen because of the special space of this small, but unique Albanian institution, with its openness and willingness to take risks, from which, from time to time, something which would have been impossible elsewhere is created. The experiment happened right after analyzing the site and discussing it with the professors, at a time when things have been sufficiently explored by using

classical analytical devices, namely those based on the Cartesian observations. This was the best moment to ask students to layout their design concept by drawing blindfolded and, in doing so, annulling all the external perceptions. This moment can be seen as a cognitive strategy which seeks to make students aware of psychic and irrational dimensions, which are decisive, in the design outcomes.

In this regard, I would point out that one of the most interesting analysis concerning deconstructive experience (P. Eisenman, B. Tschumi, Coop Himmelb(l)au and other architects and artists), in the writer's opinion, is that outlined by Anthony Viedler, currently Dean of the Cooper Union University, but also a very well-known historian and critic, especially for his studies of French architecture.

Viedler, in his most overtly Freudian book *The Architectural Uncanny: Essays in the Modern Unhomely*, (taken from the homonymous Freud essay *Das Unheimliche*), conducts a painstaking examination of projects, aimed at bringing formal analyses of architecture, from the linguistic domain to that of psychoanalysis. In this way, operations trivially seen by critics as facts of language, are conducted to the psychic domain. This approach opens up a critical thinking based on the conviction that a shape can also be based on emotions, and not only on rationality. Of interest, then, in the Vidler studies, is the correlation between psychoanalytic discourse and the organization of architectural space: it is a critical discourse that despite its deep meaning has also been viewed as a little suspect; nevertheless, it is the only study able to illuminate the great



Cognitive Experiment, 3rd year Architecture Studio, 2011-2012

impact of psychoanalytic essays (such as the very popular *Anti-Oedipus* by Deleuze) on architects. So, the outcome of our experiment rooted in a cognitive strategy able to involve psychic layers, has often been surprising: students who were stuck in a linear logic correspondence between context, program, and architectural response, rediscovered their own way to generate the project; some of them were able to draw diagrams that later became the morphological backbones of their project. Other students, simply because they were blindfolded, could rediscover the huge unconscious value of the design choices and could understand that there is no prevention in the architectural composition. Some students were particularly excited to produce different diagrams in the same session, expanding the variety of their approaches, and finally managing them in order to take a design position: the deepest architectural choices are often the result of a certain way of being rather than pure logical reasoning.

Program against typology

The Architecture Studio therefore, tends to encourage in students the development of their projects, considering them as cognitive artifacts, rather than three-dimensional objects. This concept, which I personally consider essential,

was introduced by Seymour Papert (mathematical, computer scientist and a professor at MIT) and it is based on the assumption that learning and concept construction are facilitated by the introduction of material devices able to trigger, stimulate, and facilitate the learning process. Papert's constructionist perspective which comes from Piaget, states that the artifact is a continuous medium of exchanges between abstraction and the sensuous world. The concept had some luck; it was taken up by Norman (Norman, 1993), and it can also be found in Maldonado (Maldonado, 1977) with a much broader meaning focusing on material culture, including every human product. In order to extend this approach to the architectural project, we need to carry out further considerations, explaining how the classic experience that takes place in the Studio, (objective and subjective analysis of the site, program proposal, development of the project, criticism, etc.) can be integrated within a cognitive experience framework rather than an exclusive historical-critical one. The basic idea of Post Modernism was the profound conviction in the end of history, resulting in an immense catalogue of examples to recover. In our Studio then, history is not recovered but is recreated. As

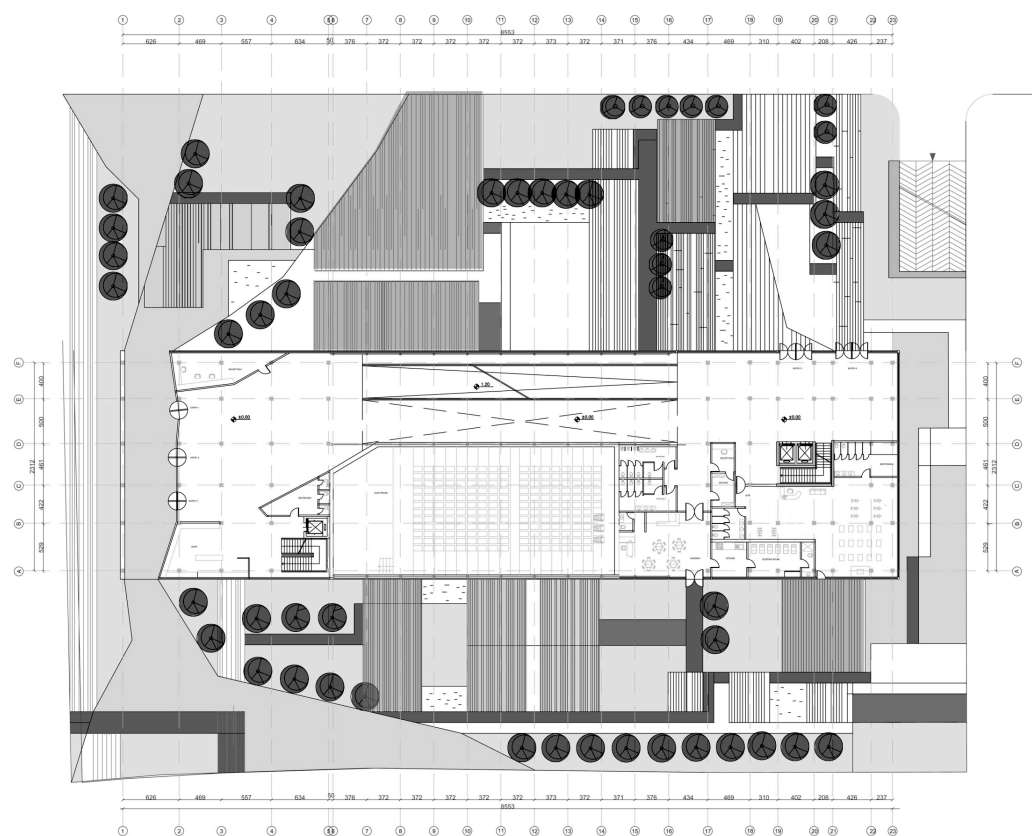
a matter of the fact, traditional architecture teaching follows a top-down approach: the architectural task in most cases is provided for the students by the professor; students then, develop it during one semester or two. This task is mainly given as a typology, being characterized predominantly by one function. In our view, the adoption of typology as a founding element in the Studio experience seems to crystallize the project into a challenge which risks to be purely formally characterized; without any measurement of the social, anthropological, transformative potentials. Another risk is that students learn from the university period that a program is imposed from the above rather than from the bottom. How can we pretend that these students will develop in their professional future the ability to cultivate alternative programs and solutions, becoming themselves promoter of a transformation?

In my academic training I had the luck to participate as a collaborator for

a few years in the Fourth year course of Architectural Design and Urban Studio. This Studio is led by Prof. A. Saggio at La Sapienza, whom I credit with a great and beneficial influence on my actual way of conceiving and conducting the Studio. Saggio, author of *Architettura e Modernità* (Saggio 2010) developed the concepts of crisis and transformation, derived from Zevi and Baudrillard; this concept is quite crucial in his courses' frameworks, especially those developed during the recent years.

The course is conceived based on the complexity of Rome, especially focusing on the recurring urban matrices (in terms of morphology, functional role, etc.) that have the potential to be reassembled within a new system. This can be achieved by proposing several urban projects based on a functional mix created by the student. The mix is crucial because of its ability to strengthen and clarify the urban macrostructure to which it belongs. In this

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way we can obtain a new network of urban spaces, the so-called Urban Voids, or a new ring intended to reconnect the suburban areas of the recent expansion through a new tramline, the so-called Urban Green Line, and more recently the TevereCavo, where the focus is on the urban potential of the Tiber River. In all of these frames the single project is the result of a series of hypotheses through a multidimensional reading of the context, able to grasp the systemic features and latent potentialities, going as far as the formulation of a functional mix from which the architectural project is generated. Beyond the specific ingredients of each mix, each project works like a dot able to reconnect things into the bigger figure. Nevertheless some constraints must be respected: a certain percentage of residential activities, another one of infrastructural aspects, and finally those related to the nature compensation (Saggio, 2011). This character of the mix that Saggio develops from the Carnegie Mellon teaching experience, is based on the assumption that the project rather than founded on an overly imposed typology, is the result of an inclusive dynamic willingness, able to creatively synthesize latencies already present on the site, and merge them within a project capable to reassemble them into a new system. It is about playing a local role in the specific area, and a global one on the urban macro-structural level.

A closer look at this framework reveals how the program is the most vital and interesting part of this approach: having it formulated by the student, it forces him/her to be an active observer of reality rather than a passive interpreter. Still, he/she

should creatively consider the inhabitants as real actors involved in the processes of urban transformations, considering then, architecture as a response to the challenges presented by contemporary contexts. It is an ecological approach, not so much in the sense of the banal contemporary greenwashing so prevalent today, but rather an awareness of the ecological process as an organizational procedure of economic and mutual benefits, as the common Greek root *eco* implies.

At this point, the architectural solution rather than being resolved into an object and its presumed correct forms, becomes a dialectical argument between the program and the architectural spaces that satisfy it.

The Studio then, is transformed into an interdisciplinary, essentially anti-dogmatic experience, capable of producing continuous openings and extensive cognitive constructions (the richness and diversity of the architectural programs) finally taking shape in the architectural proposal (it is rare in a Studio like this to see two similar projects). At the same time the knowledge created is related to the awareness of the transformation processes that can benefit from being generated from both bottom (bottom-up), and top (top-down).

Context against detail

Moving beyond the characterizations of a Studio, a common criticism of it, especially when the Studio explores topics which are far from common, is not providing enough details on how things expressed through the medium of drawing can be concretely realized. In other words, some projects, given the speculative



components of the study, would ultimately be incomplete because of a lack of thinking regarding the structural aspects, materials, and their technologies. I believe that while this statement is true on the one hand, on the other hand, it can be read as a condition resulting from a mindset which is primarily rooted in cultural and historical circumstance: that related to the separation between humanities and scientific studies. From a historical point of view this separation can be traced back to the founding of the *École des PontsetChaussées* in 1747 in France. This thesis, formulated by the historian Henry-Russell Hitchcock (Hitchcock, 1929), was taken up and articulated during the course of the twentieth century by various scholars, and finally by K. Frampton who uses it in his *History of Modern Architecture* (Frampton 1982). In addition to these classic architecture histories studied in every school, what we want to clarify is not so much the thesis supported by Hitchcock in particular but more generally, the fact that the division between science and humanity is not only surviving but it still continues to generate architects who believe in promoting aesthetics, and engineers who are otherwise convinced

of making possible what architects have designed through calculations. Obviously there are a number of intermediate conditions between these two extremes.

However, what we want to emphasize here is that a culture of the detail often reflects a broader cultural setting based on the knowledge fragmentation, hyper-specialization, or what Morin calls the exasperation process of the single thing (Morin 2000).

According to him, it is an analytical obsession so fixed on the single element study that it obscures the context in which the element exists. So our student will maybe spend one month designing the details of a structure made of reinforced concrete, or metal, or the technology related package while he/she is not able to integrate it coherently within his/her project, and especially not being able to think about the detail as a constitutive element of the project. Unfortunately details come often at the end, in the drawings and in the architectural thinking process, and if you do not get them you could be criticized. What is certain is that the kind of knowledge such as technology of architecture, often reduced to a catalogue of possible solutions, often

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represents separatism in the organizational teaching within the University. Knowledge of details, totally separated from the context in its broader productive meanings (economic organization, materials, technologies, etc.) that motivated it, is more functional to a specific sector which does not allow outside access, rather than a desire for creating inclusive organizations and progressive advances. Antohony Stafford Beer, a very well-known English cybernetic scientist, complained about sectorialisation within the university twenty years ago. Still Morin tells us: Our civilization and as a consequence our teaching have focused on the separation at the expense of the interconnection, on the analysis at the expense of the synthesis. Interconnection and synthesis remain underdeveloped (Morin 2000).

In reality there is no technology that can be understood beyond its context, and the first context in which it is conceived and used, is precisely architecture as a set of different aspects concerning different disciplines.

Towards an ambience of Architecture Studio

So, our student completed the academic year and finally presents his/her proposal: he /she thought while on the program and realized that architecture is an essentially human construction. He/she reasoned on the plans and sections from the inside out, projecting him/herself in the designed space and promoting a shared co-participation within the class. This is ultimately what Architecture Studio is about. Now, he/she knows many of the different dimensions underpinning the project, and while they create confusion, they excite him/her because if he/she

could choose between a limited number of options before while now the options are endless. He/she also realized that the most urgent issue is not the things themselves, but the relationship between things: the ecology of things.

If he/she had the maturity to step into the shoes of the professor, he/she would probably agree in saying that the strongest challenge of teaching contemporary architecture, a synthesis discipline, humanist as well as scientific, would reflect the idea stated and summed up again in the words of Edgar Morin:

A thought that isolates and separates should be replaced by a thought that distinguishes and unites. A disjunctive and reductive thought should be replaced by a complex thought in the original sense of the term *complexus*, which means what is interwoven together.

There are multiple levels of performance demanded today by an architectural project. Beyond the passing phenomena, the clash of Archistars, architecture has returned to playing this key role in contemporary society; including all of these challenges (from the functional to the energy, those related to the meanings of the *locusto*, those purely aesthetic), the ecological approach, that one focusing on the inclusive study of phenomena according to their mutual relations and feedbacks, an aspect which seems to take a louder and louder credibility. This is not about building a new theory of architecture; rather it is encompassing and re-creating the relationships between the existing ones; it is about establishing an ambience, a place of inestimable educational value for those who can grasp it.

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Very short and synthetic history of the Studio as educational model.

- Salama, A. (1995). In *New Trends in Architectural Education: Designing the Design Studio*. Raleigh, N.C.: Tailored Text.

Discourse on some theoretical and educational paradigms in architecture education

- Kuhn, S. (2001). *Learning from the Architecture Studio: Implications for Project-Based Pedagogy*. *International Journal of Engineering Education*, Vol. 17, Nos. 4 and 5.

Interesting discussion focused on the pedagogical models implied in the architecture studio.

On the figure of Bruno Zevi, many times quoted in this text, I mainly consulted the Italian edition. However some of these books are available in Albanian language and in English

- Duilio, R. (2008). *Introduzione a Bruno Zevi*, Roma-Bari: Editori Laterza

Historical and critical introduction to Bruno Zevi. This essay provides very good insights on the way Zevi built his cultural background, and eventually on the main contemporary influences that at that time affected him. Some conclusions, especially the comparison between Zevi and Tafuri, seemed sometimes inappropriate and off topic.

- Zevi, B. (2007). *Saper vedere l'architettura*. Torino: Einaudi

Per le sette invarianti in particolare:

- Zevi, B. (1973). *Il linguaggio Moderno dell'Architettura*. Torino: Einaudi

For a better focus on some categories stated by Zevi:

- Zevi, B. (2006). *Architettura. Concetti di una controstoria*. Roma: Newton Compton

An article that can be considered as an intellectual heritage from Bruno Zevi:

- Zevi, B. (1997). *Il manifesto di Modena. Paesaggistica a grado zero della scrittura architettonica*. Canal & Stamperie Editrici: Venezia

A classic collection of essays written by Bruno Zevi, and indispensable in order to penetrate modern architecture matters. In particular the essay *Saper vedere l'architettura*, is available both in English and Albanian (recently translated).

- Saggio, A. (2010). *Architettura e Modernità. Dal Bauhaus alla Rivoluzione Informatica*. Roma: Carocci

Saggio's essay is very useful in order to penetrate the concept of modernity stated by Zevi (Baudrillard) and further developed by Saggio himself, as a main thread to understand architecture thinking, starting with the last century, up to now.

- Benjamin W. (1940). *Tesi di filosofia della storia*, in Id., *Angelus novus. Saggi e frammenti*, trad. it. di R. Solmi, pp. 75-86, Einaudi editore: Torino

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For those who are interested in Gero experiments, we advise the following texts:

- Gero, J. S. and Z. Bilda (2005). *Does Sketching Off-Load Visuo-Spatial Working Memory?* In Gero, J.S. and Bonnardel, N (eds), *Studying Designers'05*, Key Center of Design Computing and COgnition, University of Sydney, pp. 145-159

- Gero, J. S. and Z. Bilda (2006). *Reasoning with internal and external representations: a case study with expert architects*, in R. Sun. (ed), *CogSci2006 Proceedings*, Lawrence Erlbaum, pp. 1020-1026

- Jormakka, K. (2005). *A Comment on Architectural Theory*, in *Contents*, Vol. 9, No. 2

A fundamental and crucial text, by the Finnish and Vienna adopted, very well cultivated theorist.

The original essay written by Freud, can be found in Italian here:

- Freud, S. (1980). *Il Perturbante*, in *Saggi sull'arte, la letteratura e il linguaggio*, vol. 1 Boringhieri: Torino

The essay by Vidler in Italian:

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Edgar Morin is one of the most influential thinkers in the frame of anthropology, philosophy, pedagogy and education. He is very well known for his trans-disciplinary approach adopted in his work.

- Morin, E. (2000). *La Testa ben Fatta, Riforma dell'Insegnamento e Riforma del Pensiero*. Milano: Raffaello Cortina Editore

Morin, E. (1994). *Il paradigma perduto. Che cos'è la natura umana?*. Milano: Feltrinelli