

TO SEE A WORLD IN A GRAIN OF SAND

About the didactics of the project

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To see a World in a Grain of Sand
And a Heaven in a Wild Flower,
Hold Infinity in the palm of your hand
And Eternity in an hour.

These words of the English poet William Blake, I repeat them every year to my students at the beginning of the course because I think they summarize well the intentions of what I intend to transmit in my project classes.

And when Emilio Faroldi, one of the most prestigious professors at the Politecnico di Milano, asks me about the didactics of design, about the soul of design, I have to think: what is the didactics of design? Didactics, from the Greek *didaskhein*, means to teach, to instruct, to explain. And we, the teachers, try to teach, instruct and explain, to give reasons. But what is and how is the didactics of the architectural project?

I don't know how many times I have written a detailed syllabus of the topics we should talk about in the project class and how many times I have jumped over that script to, live and direct, make a more intense and effective project critique. A class, let alone a project class, can never be the mere application of outlines that, although perfect, are not capable of moving the students. My father, as a good anatomy teacher, always repeated "he who does not move the hearts moves the ischia", which are the bones of the lower part of the waist. My morning class at the School of Architecture in Madrid, must end at 14.30 pm. How many times have students fooled me by keeping their attention so that when, exhausted, I ask what time it is, they answer that it is 3:15 pm. They always deceive me, but their deceitfulness is in fact a compliment, it is a way of saying that they are at ease.

To teach means to transmit knowledge that we have previously assimilated and studied.

To instruct is to deploy the project process to try to better understand and make it understandable to students.

To critique projects is to give reasons, to search and find the reasons why a project sees the light of day. Try to find and explain these reasons clearly.

Once again, reason is the main protagonist of the architectural project. And just as architects must know and be able to give reasons with which we set up our works, teachers must teach how to always look for reasons with which to solve projects.

Project teaching is not something vague and diffuse that makes students gather around the teacher like a shaman to light the fuse of their enthusiasm. In addition to the desired

enthusiasm, the student must find someone who is always ready to give him or her reasons for creating and analyzing a project.

Of course architecture is exciting and being an architect is the most beautiful profession in the world. But not, never, to make our whim but, hand in hand with a deep study of all the ingredients that concur in the architectural fact, to make a project from reason aided by imagination and memory, by knowledge. A real research work.

TEACH HOW TO FISH

How many times have we teachers repeated that teaching is like teaching how to fish. Not giving fish, but teaching how to fish. It is not about solving the student's project. It is about giving them the necessary tools to conceive a project with credible and explainable reasons.

It is not the job of a project teacher to be a private advisor who leads the student by the hand to the solution that the teacher believes to be the most appropriate. That is why, when I have 150 students in front of me every day, instead of protesting, I understand that it is this type of class, generalist, capable of reaching all 150, that I must give in order to be effective for all of them. This work is completed with that of the teaching assistants who can and must go into more detail with each student. Because, also the teaching of Projects is a research work.

TOOLS

I have decided to focus the next academic year on the study of architectural mechanisms that are an effective means of translating spatial ideas. Knowledge of these mechanisms, *tools*, is more than convenient: compression vs dilation, stereotomic vs tectonic, the cave and the hut, diagonal space, double height space, the horizontal plane that becomes a line at eye level, isotropic space, symmetry vs equilibrium, and many others. I think it will turn out well.

Of course, we cannot stop talking about the gravity that builds space, about the light that builds time, about architecture as a constructed idea, about place, about materials, and about so many other subjects. Architecture is so complex, so rich..,

THE DREAM OF REASON PRODUCES MONSTERS

No wonder Goya wrote in a beautiful etching well known: "The dream of reason produces monsters". And then he wrote: "Reason united with fantasy is the mother of the arts and the origin of marvels". Not bad as a didactic proposal.

For it is in this way, with this double register of reason and imagination, that teaching must move.

On the side of reason, we teachers must prepare our classes and establish criteria with which to analyze and criticize the projects as rigorously as possible.

On the part of the imagination, we must be able to make our students dream, to fascinate them, to convince them that it is possible to build dreams.

Reason as a principle and beauty as an end.

TO KNOW, TO KNOW HOW TO TEACH, TO WANT TO TEACH.

I have told and written a thousand times what Julián Marías, a good Spanish philosopher and disciple of Ortega, proposed as the three conditions of a good teacher: "to know, to know how to teach and to want to teach".

Knowing. It is necessary for us teachers to be always studying. To know a little more every day. To fill the well of wisdom. With the satisfaction that comes from acquiring more knowledge to be able to transmit it later.

Knowing how to teach. It is convenient to learn and practice effective teaching methods. Each one of us has our own tricks, our own recipes, to capture the attention of the students and to transmit them effectively what we want to teach.

To want to teach. It is to leave one's life in it. To dedicate a number of hours that always exceeds the number of hours the school demands. It is exhausting, but it is worth it.

MICHELE SILVERS INTERNATIONAL AWARD 2013

This text on the didactics of the project comes from the Tesi di Laurea project presented at the School of Architecture of the Politecnico di Milano by Tommaso Campiotti, Paolo Volpetti and Tommaso Certo, which obtained the highest qualification in their School and then the prestigious Michele Silvers Award 2013 for the best Final Degree Project in Architecture in Italy. I had the honor of co-directing with Emilio Faroldi that project. The proposed theme was a Library in Madrid in Plaza del Rey. The three Italian students came periodically to Madrid, to the ETSAM, to correct their project in a process that was exemplary.

Tommaso Campiotti had previously been a student of mine with the Erasmus program and also obtained then the highest qualification. He is currently a mentor teacher at the School of Architecture of Madrid, in my Teaching Unit with excellent results. And he is currently working on his doctoral thesis. I must recognize that in recent years the Italian students who come to Madrid are of a very high level, reflecting the high quality of the teaching of projects in Italy and, particularly of the School of Architecture of the Polytechnic of Milan.

N.B.

There are some texts that I have been recommending to students lately that I can't resist recommending here:

The Meditations of Marcus Aurelius. Wonderful. Originally written in Greek. Now, it is my bedside book. He says among other things when talking about his father "he made no one feel inferior before him".

The 23 advices of St. Augustine to the young people of the 14th century. Absolutely up to date. Printed on a sheet they are inside my Marcus Aurelius book. One of the 23 suggestions is "Recognize your defects and try to correct them".

And never forget the words of Louis Sullivan who in addition to being a magnificent architect was an excellent teacher, a master "You cannot create without thinking, and you cannot really think without creating in your thinking".

And to be clear that what we architects do is to seek beauty. I used the title "Searching hard for beauty" for my acceptance speech at the Royal Academy of Fine Arts of San Fernando. And this past academic year, I dared to make my first class about beauty. I thought perhaps it was too strong. The result was splendid. All the students understood perfectly that the principle of architecture is in reason but that its end is beauty.