

Maure Rubio

*Good morning everyone dear colleagues of this beautiful subject that revolves around the geometry and the representation of space on the plane and that we have been imparting in different places and faculties of fine arts and design in Europe.*

*In Madrid at the UCM and in the Faculty of Fine Arts This subject has six credits both for the degree studies in fine arts and for the degree studies in design. In short, they are four hours of class per week during a semester. And it is taught in the first course. During these four hours per week, we, teachers, try to expose a very extensive program.*

*Many of our students have not studied at the bachelor's degree and when they start at university, they have little knowledge. Therefore, it is increasingly difficult to develop works, in which the student can put into practice the geometric drawing and apply this knowledge in creative works. Despite everything, we try not to reduce the knowledge to the theoretical aspects only. We try to make creative works with this knowledge.*

*The program is similar in the two grades. In the Design we expand more in the dihedral system and in the axonometric, in the Degree in Fine Arts the perspective.*

*We start with flat, and spatial metric geometry. Both fine arts students and design students are asked to create a logo from the initials of their first and last names, using only the conic curves as figures and the tangencies between them.*

*Metric geometry alone can generate the design and sometimes the layout is better than the final image.*

*From the visit to the exhibition of William Morris-Arts & Craft I proposed to make a work for a tapestry again using conic curves, tangencies and concordances.*

*After metric geometry we explain the basic concepts of the representation in dihedral and axonometry. In the shown examples, students have developed a drawing in axonometry, but I do not have the pencil drawings for the drawing on the right.*

*We explain all the concepts, methods and operations in the two orthogonal projection systems. For five weeks to the design students and two to the fine arts, we explain the representation in dihedral and axonometric. And for the students of the design degree, we explain the first concepts and operations to obtain the intersection of basic surfaces.*

*We explain concepts, methods and operations of the perspective for five weeks to students of fine arts and only two to those of design.*

*I have been able to verify throughout these years of class that the student who is proposed a creative work to be done manually, supported by geometrical tracings uses every minute of making the geometric drawing for thinking about the result. Creative ideas are also born while drawing, it is not a lost time that we could save with 3d programs. Perhaps it is because when the difficulty of geometrical work has been overcome and captured by its possible beauty, the student finds in his own drawing a source of creative inspiration.*

*The exercise based on the perspective of an Arc is an example. The well resolved perspective is the same, but the ideas it generates differ and contribute to new ideas in its creation.*

*I have brought you two student assignments, the first from Michele del Campo. corresponds to a time when we had twice as much time as now - 2004'05. It was proposed that the perspective of a staircase, generate a composition that would eventually be a painting with the use of any pictorial material. It was and still is necessary that the student presents a memory of intentions, the sketches and preparatory drawings, the perspective in pencil with all the tracings, and the final drawing.*

*This student is today a painter of recognized prestige, who already stood out among the students. I really liked the work and that's why I kept the photos of part of the process.*

*The second work presented corresponds to the student Elena Carro, from the present year in fine arts. With this work I explained to the students how perspective knowledge can also be used to give a quick solution to problems that otherwise would take more work. It is a job of restitution of perspective. From a photograph of the Plaza Mayor of Madrid, made by me, from a vertical plane and known height, the student must obtain the necessary data (viewer position, distance to the plane of the painting, vanishing points ...) to incorporate in the photograph itself a sculpture according to the perspective.*

*The sculpture to be projected must be placed on the base that has been marked on the pavement of the square by means of four points, vertices of a square.*

*I proposed to make it in pencil and with a final drawing with coloured pencils, because we do not have time to do what in previous years.*

*She would also have to make her representation in the dihedral system with the most important measures that would lead to the perspective. In short, the image of her sculpture had to respond to the real dimensions and position. The student Elena Carro wanted to frame the existing equestrian statue with her sculpture.*

*In my presentation to the Encounter I have tried to expose our program and with the drawings of the students we see how far the time available allows us to arrive.*

*And, with these drawings I finish this brief exposition of how we approach and develop the subject in the faculty of arts of Madrid.*

*On the other hand, and following the guidelines of the program sent to us by Vasco Cardoso, I must say that what I most liked to investigate are the perspective tracings of the mural painting that decorates churches, palaces, villas and other monuments. I have written some articles on this topic and if someone is interested you will find them on the Dialnet website.*