

## 1. Universidade de Évora (*University of Évora*)

The **Universidade de Évora** (*University of Évora*) is the second oldest university in Portugal, established in 1559 by then cardinal Dom Henrique (1512-1580), future king of Portugal (1578-1580) and receiving University status in April of the same year from Pope Paul IV, as documented in his *Cum a nobis* papal bull. Its administration and teaching was done under the aegis of the Society of Jesus (also known as Jesuits); the university was closed down permanently in 1779 when this religious order was banned from the country. Their teachers and masters were either incarcerated or exiled.

The main subjects taught in the university were Philosophy, Theology, Grammar and Humanities, inserting this teaching in the traditional counter-reformist framework of European Catholic institutions of higher education, most of which were controlled by the Jesuits. It was in the year of 1692 that the teaching of Mathematics started to be ministrated, covering subjects as varied as Geography, **Physics**, or Military Architecture.



In 1979, by ministerial initiative, the new **Universidade de Évora** was created, a public university currently in operation. The new university of Évora occupies several buildings in the city of Évora, including the facilities of the old university, and in the surroundings of the city.

In the main and old building it is located the large and trapezoidal **university cloister** where we can access the main classrooms of the old university; they are fourteen, each one dedicated to a discipline<sup>1</sup>, decorated by tile panels alluding to the teaching theme that was professed there and in an elevated position, facing the entrance of each room, the *cátedra* (teacher' chair) made of noble wood. Walking through the cloister, we can find the rooms, for example, of *Literary Genres*, *Latin*, *Geometry and Astronomy*, *Sacred Scriptures*, *Greek Philosophy*, **Physics**, *Metaphysics*...

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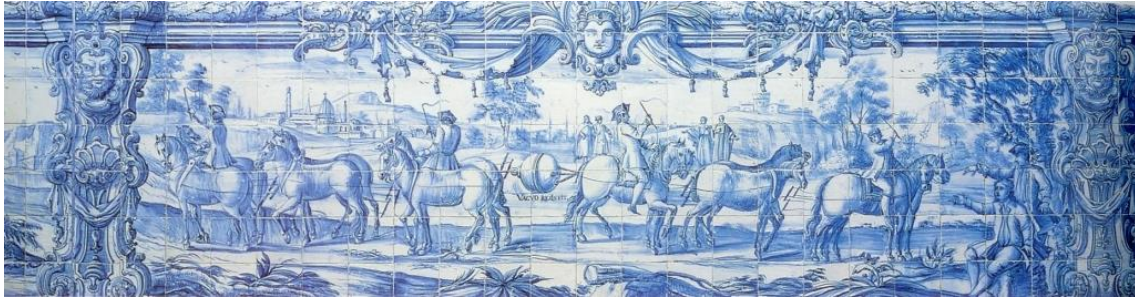
<sup>1</sup> As far as we know, this didactic decoration that are presented on the walls of these classrooms since the first half of the 18th century is perhaps unique in Europe...



## 2. The Physics Room

A room with a rectangular configuration [ $\approx (6,80 \times 10,30)$  meter] whose ceiling is supported by two elegant marble Doric columns. Inside, there is a set of eight tile panels, completely covering the walls up to one third of the height of the room, which illustrate some of Nature's properties. They are didactic tables which correspond to the subjects taught by the Physics teachers of the Society of Jesus. From left to right, here's the description of the eight tile panels [each one a dimension  $\approx (3,30 \times 1,35)$  meter] .

- (1) The **School of Aristotles**: men walking in small groups and observing the nature. The main figure on the right has the caption *Aristotle* on his head, he is the only one seated and in a teaching posture. It is the Aristotelian academy as the guidelines for the Natural Philosophy taught by Jesuits;
- (2) The **Magdeburg Hemispheres Experiment** carried out in 1654 by Otto von Guericke; with this spectacular experiment, it was publicly demonstrated that the nature had no "horror to the vacuum" and also the importance of atmospheric pressure in the cohesion of the two hemispheres. This tile panel follows very closely the first pictorial description of this experience made by the Jesuit priest Gaspar Schott in his work *Mechanica Hydraulico-Pneumatica* published in 1657;



- (3) The **Torpedo fish**: this fish, which by contact causes a kind of torpor or electric shock, has been known since antiquity; the Latin phrase, *De Natura et Virtute Torpedinis* (on the nature and property of torpedo fish) stands out on the panel; the first anatomical description of this fish is in the work of Francesco Redi, *Esperienze intorno a diverse cose naturali and particularly quelle che ci son portate dall'Indie, scritte in una Lettera al padre Atanasio Chircher della Compagnia di Gesù*, published in Florence in 1671;



- (4) The **Perspective**, the school of drawing and painting, this subject fits in this room, because it was studied as a chapter of the optics; this panel is partially above the steps to the *cátedra*;
- (5) The **Ustory mirrors**: an evocation of the famous Archimedes' intervention in the defense of his hometown Siracusa; an allegory to represent the laws of optical reflection;



- (6) **Prometheus Chained** with the legend **Physica**: the Greek mythology hero who stole fire from the gods and made it known to men, facing such an attitude of upheaval of divine powers, Zeus ordered Prometheus to be punished (chained to the summit of Mount Caucasus, an eagle would eat his liver); this is the most used metaphors to represent man's ability to know and use knowledge;
- (7) The **Pulvis Sympathicus** (Powder of Sympathy): in the 17th century people believed in the healing virtues of this powder, a belief based on an ointment described by Paracelsus; the powder acted remotely out of sympathy between the wounded and the weapon that had wounded him; this therapy was a highly controversial matter and there were Jesuits

who openly opposed its use, a fact that makes the presence of such a picture in the university rooms very strange, although one can interpret the use of this image as an example of a "Remote action" of another type or other interaction between the animal and the material;

- (8) The **Electric action** and the **Magnetic Action**: two captions — *De Virtute Succini* (on the property of amber) and *De virtute magnete* (On the property of the magnet) — are sufficiently clear about the description of this didactic frame; a group of standing and attentive figures surrounding the stagirite (a very similar to the first one that was subtitled as Aristotle) that explains both phenomenon — rubbed amber acting at distance and the effect also at distance from a stone on other stones.