

The educational project of the classroom of meteorology in Badalona (Spain): from the restoration of an historical and European scientific heritage to the popularization and education in atmospheric science.

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In 1883, the industrial owner Mr. Evarist Arnús funded the construction of a special meteorological set. It was a meteorological tower which contains a thermometer, a barometer, a pluviometer (which measure the daily rainfall) and a wind vane with big displays which allows reading easily the meteorological data, a calendar and a lunar calendar. This tower was initially placed in a cross-road of the Barcelona city centre, with the aim of increase the attention of the citizens for the meteorological data. Some years later, at beginning of XX century, this tower was moved from its initial emplacement to the garden knoen as Ca l'Arnús, a property that the Arnús family had in Badalona, a city placed 10 km northeast to Barcelona city centre. This meteorological tower is one of the most ancient in Europe, classified by the scientific community as a treasure of the scientific European heritage.

Few years ago, in 2005 Ca l'Arnús property was subsideed to the City Council of Badalona. The big garden of this property became an urban park and the Ca l'Arnús house began to host activities for the Badalona population and primary and high school students. The meteorological tower which was quite deteriorated was restored including its complicated mechanisms of the meteorological apparatus and its displays, respecting the original pieces and designer. This restoration process was the beginning of an ambitious project of meteorology divulgation in Badalona. Furthermore of the meteorological tower restoration, a class – laboratory was specially designed in order to host different activities to divulgate the atmosphere sciences, called the air classroom school. The house of Ca l'Arnús, 25 meters to meteorological tower, will be the museum of meteorology in a close future. Actually, the Ca l'Arnús equipments are the place where different activities related with the meteorology take place:

- Guided visits to the meteorological tower. In this activity, opened to all the public, the history of the tower and the structure and functions of the different apparatus which it contains are explained.
- Meteorology workshops consisting in simple and easy practical demonstrations related with atmosphere parameters and phenomena. These activities, also opened to all the public, are combined with guided visits to the meteorological tower. The aim of these easy activities is to divulgate the atmospheric knowledge. As the materials and the procedures used in the different activities of the workshop are easy and simple, people can repeat the experiences at home if they want to do it by themselves.
- Educational activities for all the scholar and high school levels related with the actual contents of meteorology in the curricula. Most of these activities are also combined with guided visit to the meteorological tower. The didactic characteristics of these activities are: practical and participative, combining individual and group work, use of simple and easy to find materials and based in the socio-constructivist model. These educational activities form part of the project the air school, and are designed for a primary school (6 to 12 years) and from different levels of high school (13 to 18).