

Preservation of seismograms from Observatori Fabra first seismic station (1906-1913)

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Fabra Observatory (Observatori Fabra) is an active institution that has been operating in Barcelona since 1904. It was created and maintained by the Royal Academy of Science and Arts of Barcelona (RACAB), an association of investigators of science and its applications established in 1764. It has always been devoted to astronomical, meteorological and seismological observations and studies. Seismic observations started in 1906 and have been maintained active since then.

Josep Comas i Solà was the head of the first seismic station from the beginning of the Observatory until 1913, when the new head of the section dismantled the first station to perform some refurbishments of the spaces and installed a new station with new instruments. The first seismic instrumentation consisted of an Agamennone seismoscope, Cancani and Agamennone seismographs and a Vicentini microseismograph. The instruments, working with smoked paper or ink on paper, were strongly modified several times during those early years of the instrumental seismology to experiment with different configurations. A weekly report of their detections and some special issues about seismic phenomena and news were published on local media. In addition, he produced contributions to congresses and several published studies were produced.

Near one thousand seismograms and some parts of the instruments have been conserved from that epoch. Each of those seismograms have been revised, photographed, inventoried, restored and archived under better conditions to ensure a proper preservation and to make them available to study. Here we aim to expose our experience and results in these tasks, explaining in detail each stage of the project and the different dilemmas and decisions taken. Observatori Fabra is a relatively small and independent institution with a limited budget and personnel but with a significant historical scientific patrimony and a remarkable interest to use it for both scientific and divulgation purposes. Since much of the pre-WWSSN data is still owned and maintained by similar institutions, we think that sharing our related experiences, problems and ideas could be of great interest for this audience. Therefore, we present this contribution with the following main goals in mind: 1) set an example of doable activities and projects that a small independent observatory can undergo to preserve its seismic heritage even with severe limitations of resources and personnel; and 2) share with others our experiences, strategies and a few suggestions of our opinion about what and why to do or NOT to do for each case.