

# Historic centre of Pienza

**Historical background - Engineering geological conditions and problems:**

It was in this Tuscan town that Renaissance town-planning concepts were first put into practice after Pope Pius II decided, in 1459, to transform the look of his birthplace. He chose the architect Bernardo Rossellino, who applied the principles of his mentor, Leon Battista Alberti.

The town, built on a hill, presents a lot of instability problems. In particular the cathedral, erected on an unstable terrain, has been repeatedly subject to landsliding in the last centuries. The last one occurred in 1963 and the sliding involved not only the church but also other buildings. In that occasion, the triggering factor was probably an earthquake.

**Investigations and protection measures already realized:**

Soil instability was evident already at the time of church construction. Apse foundations were reinforced from 1910 to 1934 with a complex system of galleries. The galleries have a duplex purpose: they allow inspections under the apse and at the same time represent a drainage system of underground waters. In spite of this kind of protection, the church at present shows a lot of fracture systems.

**Supplementary information:**

The city of Pienza was inserted in the UNESCO World Heritage List in 1996 considering that the site is of outstanding universal value as it represents the first application of the Renaissance Humanist concept of urban design, and as such occupies a seminal position in the development of the concept of the planned "ideal town" which was to play a significant role in subsequent urban development in Italy and beyond. The application of this principle in Pienza, and in particular in the group of buildings around the central square, resulted in a masterpiece of human creative genius.

**References on studies already done:**

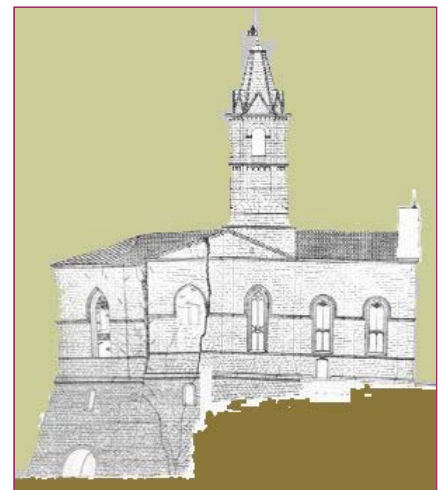
CALABRESI G., IZZO S., LAZZAROTTO A., MENICORI P., PIERUCCINI U. (1995) "Movimenti gravitativi nell'area di Pienza" Mem. Soc. Geol. It., L, 67-82  
 LAZZAROTTO A. e MICHELUCCHINI M. (1988) "The cathedral of Pienza, Italy, and its foundation soils" In: Proceedings of the International Symposium "The engineering geology of ancient works, monuments and historical sites" - Athens, 19-23 sep. 1988, pag. 459-467.



**The main Square entitled to Pope Pius II** ([www.comunepienza.it](http://www.comunepienza.it))



**The cathedral of the town** ([www.comunepienza.it](http://www.comunepienza.it))



**Section of the cathedral** ([www.portalepienza.it](http://www.portalepienza.it))