

Introduction

The town of Pisa, located on the Arno river near the Tyrrhenian coast of Italy, became a flourishing commercial center and a powerful maritime republic in the 11th century. Having defeated the Saracens in a series of sea battles, it grew into a very important commercial and naval center, took control of the Mediterranean sea and acquired colonies in Sardinia, Corsica, Elba, Southern Spain and North Africa (Fig. 1.1). In the 12th century, it was the naval base for the First Crusade in which a fleet of 120 Pisan ships participated; it established a number of settlements in the Holy Land, founding colonies in Antioch, Acre, Jaffa, Tripoli, Tyre and Larakia.

It was in the period of maximum splendor of the Republic, in the 12th and 13th centuries, that the monuments in Piazza dei Miracoli (Miracles Square) were erected. The Square, with the Cathedral, the Baptistry and the Leaning Tower (Fig. 1.2), is the awesome manifestation of the ideal unity that reigned at the time among religious, spiritual and political powers. In its monuments, civil history and history of art intertwine, giving them an extraordinary character as sign and symbol of the city (Franchi Vicerè, Viggiani *et al.*, 2005; Franchi Vicerè, Veniale *et al.*, 2005). Civic pride, identity and a sense of belonging are evident in an engraving on a stone on the façade of the Cathedral, recalling in epic tone that the treasures captured from the Saracens, after taking Palermo harbor in 1063, initially funded the construction.

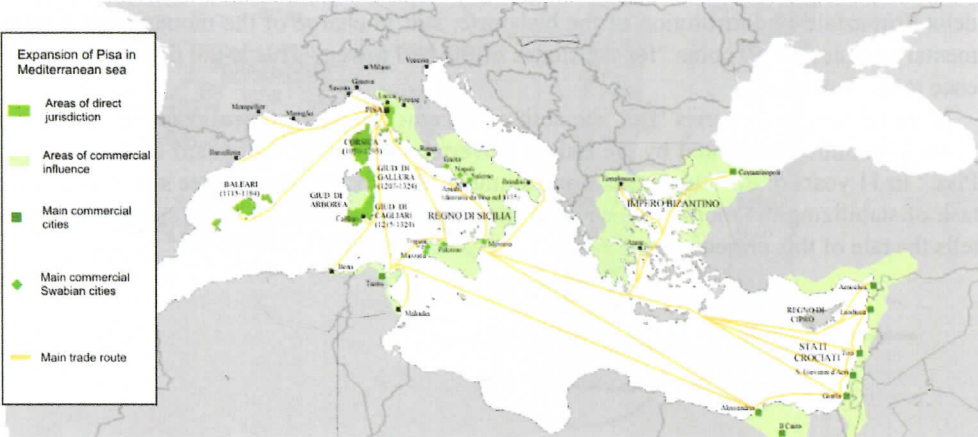


Figure 1.1 Commercial and territorial expansion of the Republic of Pisa in the 12th century: trade routes, colonies and warehouses



Figure 1.2 Pisa, Piazza dei Miracoli: the Leaning Tower, the Cathedral and the Baptistery

About one century later, in 1172, a lady named Berta, widow of Calvo, left to the Opera della Primaziale (the institution of the bishopric, still in charge of the monuments) a testamentary bequest of 60 coins “for the stones of the bell tower.” This is the first known reference to the Tower.

More than eight centuries later, the authors became the geotechnical team of an International Committee appointed by the Italian Government “for the Safeguard of the Tower of Pisa.” In 11 years of difficult, intense and stimulating work, the Committee succeeded in the task of stabilizing the monument while at the same time respecting its integrity. This book tells the tale of this project.