



Francesco Tensini, 1630

La Fortificatione Guardia Difesa et Espugnatione delle Fortezze

esperimentata in diverse guerre del
Cavaliere Francesco Tensini da Crema già
ingegnere capitano et luogotenente
generale dell'artiglieria del Duca di Baviera,
del Re di Spagna, e dell'Imperatore Rodolfo
Secondo. Et hora personaggio condotto
della Serenissima Signoria di Venetia

Pages	287
Plates (in text)	48
Layout	Folio (355×250)
Printing Technique	Engravings

Introduction to the volume

Author

Francesco Tensini

Year

1630 (1624 First ed.)

Shortened bibliographic reference

Tensini_Fortificatione

Place & Publisher/ Printer

Venice
Antonio Bariletti et Fratelli al Segno del Mondo

Brief Publishing history

First edition - 1624. In Venice. Evangelista Deuchino

Second edition - 1630. In Venice. Antonio e fratelli Bariletti.

Third edition - 1655. In Venice. Francesco Brogiollo.

Marini notes that there are no significant differences between the editions.

Link to resource consulted

↗ [Google Books](#)
(last consultation 27/06/2024)

Scientific Analysis Data

Identified Units of Measurement

Venetian foot = 0.348m
Venetian pace (*passo veneziano*) of 5 feet = 1.739 m

Sites Dissertation

Yes

Geometric Constructions

Yes

Construction Techniques and Materials

No

Second Flank Applications

Yes - at one third of the curtain wall

Dissertation of Outworks

Yes - Tenailles, Fausse-bray, Half-moon e ravellin

Irregular Fortification Geometric Construction

Only a few measures

Earth-only Fortifications

Yes

Reference to other Treatises

De Marchi, Francesco. 1599. *Della architettura militare del capitano Francesco de' Marchi bolognese ...*
Maggi, Girolamo. 1564. *Della Fortificatione ...*
Teti, Carlo. 1569. *Discorsi sopra le fortificazioni ...*
Busca, Gabriele. 1585. *Della Espugnatione, et difesa delle fortezze...*
Collado, Luigi. 1606. *Prattica manuale dell'artiglieria, doue si tratta dell'eccellenza, & origine dell'arte militare, e delle machine vsate da gli antichi; ...* composta da Luigi Colliado... - In Milano: per Girolamo Bordoni, e Pietromartire Locarni
Guicciardini, Francesco. 1561. *L'Historia d'Italia*, Volume 1.
Giustiniani, Pompeo. 1609. *Delle Guerre di Fiandra in libri VI...*
Lorini, Bonaiuto. 1596. *Delle fortificationi di Buonaiuto Lorini libri cinque...*
Barleduc, Errard de. 1600. *La fortification reduicte en art demonstrée*. Paris.
Lechuga, Cristofaro. 1611. *Discurso en que trata de la artilleria, y de todo lo necessario a ella; con un tratado de fortification y otros advertimentos*. Milano.
De Groote, Alessandro. 1617. *Neovallia*. Monaco.
Brancaccio, Fra Lelio. 1610. *I Carichi Militari di Fra' Lelio Brancaccio...*

References to existing or demolished fortifications

Grol; Amberghe; Ostenda; L'Inclusa; Castello di Laghe; Linghen; Giuliers; Blifort; Berges; Grave



Additional information

Essential critical bibliography

Breman, P. (2002). *Books on Military Architecture Printed in Venice*.
Leiden, The Netherlands Brill.
[↗ Brill](#) (last consultation 30/01/2026)

Annotations

He implicitly praises the fortification model of Buonaiuto Lorini, updating it according to his own considerations and integrating it with innovations derived from his experiences in Northern Europe. The model is characterised by the adoption of the second flank at one third of the curtain walls; it should be noted, however, that the curtains close the polygon, as Francesco Tensini proposes an island bastion model (detached from the curtains), developed from his experiences in Friesland in 1606.

The gorges and flanks have a length equal to one sixth of the curtain wall. Half of the flank is occupied by the shoulder, upon which the orillon is placed. The bastions are characterised by their reduction to island form and by the use of double platforms (upper and lower) on the flanks. The lower platform is uncovered. Cavaliers are discouraged but permitted, and are to be positioned near the gorges.

Particularly noteworthy is the invention of the Barbacannone. The Barbacannone is a faussebraye (an element of Dutch origin), laid out in a tenaille configuration in order to sweep the bastion fronts and the ditch. The layout of the Barbacannone has been traced by some scholars back to the tenaille works of Francesco de Marchi.

