

**THE AMERICAN
VIGNOLA, PART I:
THE FIVE ORDERS**

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The American Vignola, part I: the five orders by William R. Ware

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WILLIAM R. WARE

**THE AMERICAN
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THE FIVE ORDERS**

THE
AMERICAN VIGNOLA

PART I
THE FIVE ORDERS

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PREFACE

IN January, 1859, I went from Mr. Edward Cabot's office in Boston, where I had been for two or three years, to join the little company of half a dozen young men who were studying architecture in the Studio Building in Tenth Street, under the inspiration of Mr. Richard Hunt. Mr. Hunt had just returned from Paris and was eager to impart to younger men, though we were not much his juniors, what he had learned in the *École des Beaux-Arts* and in work upon the New Louvre. We had all, I believe, had more or less of office experience, but those were the days when the Gothic Revival was at its height, and Mr. Hunt found most of us unfamiliar with Classical details and quite unskilled in their use. I, at any rate, knew hardly a touch of them, and I remember well the day when, as I was carefully drawing out a Doric Capital according to the measurements given in my *Vignola*, Mr. Hunt took the pencil out of my hand and, setting aside the whole apparatus of *Modules* and *Minutes*, showed me how to divide the height of my Capital into thirds, and those into thirds, and those again into thirds, thus getting the sixths, ninths, eighteenth, twenty-sevenths, and fifty-fourths of a Diameter which the rules required, without employing any larger divisor than two or three.

It seemed as if this method, so handy with the Doric Capital, might be applied to other things, and I forthwith set myself to studying the details of all the Orders, and to devising for my own use simple rules for drawing them out. The present work presents the results of these endeavors. Experience in the class room has, meanwhile, amplified and extended them, and they have at many points been improved by the suggestions of my colleagues.

I am particularly indebted to Professor Hamlin and to Mr. W. T. Partridge for some ingenious applications of the 45-degree line to the Doric Entablature and to the Corinthian Capital, and for an analogous employment of the 60-degree line.

Finding that the plates in which, for the convenience of my own students, I have embodied these results are somewhat in demand by others, I now publish them in the present volume, adding such text and marginal illustrations as the subject matter seems to require. The Plates have been drawn out for me anew by Mr. Partridge, as have also most of the Illustrations. The rest have been taken from standard publications, especially from Bühlmann's "*Architecture of Classical Antiquity and the Renaissance*," which has furnished twenty-six of the Figures.

The forms and proportions here set forth are, in the main, those worked out by Giacomo Barozzi da Vignola and first published by him at Rome in the year 1563, as those which, in his judgment, best embodied the best practice of the ancient Romans. Other systems have been presented by Alberti, Palladio, Scamozzi, Serlio, Sir William Chambers, and others. But Vignola's Orders have generally been accepted as the standard. His works have been frequently republished, and recourse must be had to them for minute information in regard to details. But the dimensions given in this book, and the methods of determining them here described, will suffice for the execution of all drawings and designs which are made to a small scale.

This volume is concerned only with Columns, Pilasters and Entablatures, Pediments, Pedestals, and Balustrades. The employment of these Elements in the Composition of Doors and Windows, Wall Surfaces

external and internal, Staircases, Towers, and Spires, Arches and Arcades, Vaults and Domes, and other architectural features, will, I hope, at a later day be made the subject of a separate treatise which will be the natural sequel to this one.

After the chief part of this volume was in press my attention was directed to a somewhat similar work by the celebrated James Gibbs, the architect of St. Martin's-in-the-Fields and of St. Mary-le-Strand. He published in London, in 1732, a series of plates showing the Orders and their applications with a brief descriptive text. The title page reads: "Rules for Drawing the Several Parts of Architecture in a more Exact and Easy Manner than has been heretofore Practiced, by which all Fractions, in dividing the Principal Members and their Parts, are Avoided." The book begins with an *Address to the Reader* which opens as follows:

"Upon examination of the common ways of drawing the Five Orders of Architecture, I thought there might be a method found out so to divide the principal Members and their Parts, both as to their Heights and Projections, as to avoid Fractions. And having tried one Order with success, I proceeded to another, till at length I was satisfied it would answer my intention in all; and I doubt not but that the Method here proposed will be acknowledged by proper Judges to be the most exact, as well as the easiest, that hath as yet been published."

I find on examining the plates that, though they follow an entirely different system, they have anticipated some of the methods of the present work.

WILLIAM R. WARE.

October 1, 1902.

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THE AMERICAN VIGNOLA

The Five Orders

INTRODUCTION

A BUILDING is a shelter from rain, sun, and wind. This implies a *Roof*, and *Walls* to support it. If the walls entirely enclose the space within, there are *Doorways* for access, and *Windows* for light. Roofs and walls, doors and windows are the essential features of buildings.

Roofs may be flat, sloping, or curved. A roof with one slope is called a *Lean-to*, Fig. 1. When two sloping roofs rest upon parallel walls and lean against one another, they meet in a horizontal *Ridge*, Fig. 2, at the top, and form a *Gable* at each end. Roofs that rise from the same wall in opposite directions form a *Horizontal Valley*, Fig. 3, at the wall. If two walls make a projecting angle, their roofs intersect in an inclined line called a *Hip*, Fig. 4. If the walls meet in a reentering angle, the inclined line of intersection is called a *Valley*. Circular walls carry conical, Fig. 5 (a) or domical roofs, Fig. 5 (b).

If there is more than one story, the flat roof of the lower story becomes the *Floor* of the story above. If the roof extends beyond the wall that supports it, the projection is called the *Eaves*, Fig. 6. If the wall also projects, to support the extension of the roof, the projection is called a *Cornice*, Fig. 7. The principal member of a cornice, which projects like a shelf and crowns the wall, is called a *Corona*, Fig. 8.

Walls are generally made wider just at the bottom, so as to get a better bearing on the ground. This projection is the *Base*, Fig. 9. A similar projection at the top is called a *Cap*, or, if it projects much, a *Cornice*, as has been said. A low wall is called a *Parapet*. A short piece of wall about as long as it is thick is called a *Post*, and if it supports something, a *Pedestal*, Fig. 10, the part between its *Cap* and *Base* is then the *Die*. A tall post is called a *Pier*, Fig. 11, if it is square, and a *Column* if it is round. Caps of piers and columns are called *Capitals*, and the part between the *Cap* and the *Base*, the *Shaft*. The flat upper member of a *Capital* is called the *Abacus*.

