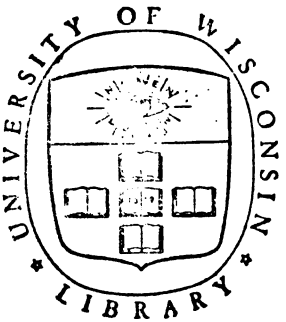

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FILIPPO DI SER
BRUNELLESCO

BY

LEADER SCOTT

LONDON
GEORGE BELL & SONS
1901

PREFACE

IT is very difficult to obtain enough data for an authentic life of Filippo di Ser Brunellesco. In writing the life of a painter, his own works are before us just as he painted them, and they unerringly reveal the genius and character of the man. A sculptor's statues and reliefs also show us visibly his own handiwork untouched by any sacrilegious hand but the gentle one of time; the music of a composer who lived a hundred years ago, is with us still as he conceived it; and the thoughts of the poet or philosopher are embalmed in their own language within the leaves of their books.

But with an architect like Brunelleschi the case is different.

His designs were changed even in the hands that continued them on his death; his buildings were restored (?) by subsequent architects and incongruous bits inserted in them, like Ammannati's Roman pediments inserted to Brunelleschi's grand arched doorways in the Pitti. Beyond the Pazzi chapel and the old sacristy of San Lorenzo, which Brunelleschi finished during his lifetime, I believe there is not another work of his by which a modern critic could fairly judge his design. Thus, the works which should best illustrate his nobility of conception are now more misleading than convincing in their evidence.

The only original fountain of information is the anonymous MS. written by a contemporary, which was first edited by Canon Domenico Moreni in 1812. From this fountain, aided by tradition and a few scarce documents, both Baldinucci and Vasari drew their facts. As far as regards the work of the cupola of the Florence Cathedral, we have now a full and true account, thanks to the learned archivist Sig. Cesare Guasti, who in 1887 published his interesting extracts from the archives of the Opera, under the title of "La Cupola di Santa Maria del Fiore illustrata. Firenze, 1887."

But of all Brunelleschi's other works the documentary evidence is distressfully scarce, and in some cases utterly wanting. For these we have only the vague assertions of the earlier biographers, and to many of his commissions we can only fix an approximate date suggested by some concomitant circumstance.

Thanks to Sig. Gaetano Milanesi, late of the State Archives, the *anonimo* is now no longer anonymous, but takes form as Antonio Manetti, a master joiner and architect, who knew Brunelleschi in life, and continued some of his works after his death. In the preface to his publication of the "Opere istoriche di Antonio Manetti, edite ed inedite," Milanesi gives all the proofs he has discovered of the authorship of the anonymous biographer. First, the similarity of writing with a MS. of the fifteenth century in the Magliabecchian, which MS. came from the Badia a Ripoli. It contains several different essays—among others, one entitled "De viri illustri di Firenze." At the end of the second part, "Dell' Arcadreo di Maestro Gherardi da Chermona"

(Cremona), is written: "Questo libro è d'Antonio di Tuccio di Marabottino Manetti, e scritto di sua propria mano: acchì e' viene alle mani gli piaccia di renderlo, e prieghi Idio per lui. Compiuto negli anni del nostro Signore Yhu Xpo, 1441." After Part V., the "Life of Charlemagne," is written: "Scripto per me Antonio di Tuccio Manetti ciptadino fiorentino e di mie mano, e finito questo dì VIII. di Settembre 1466 et copiato dallo originale et da donato acciaiuoli avuto, chello compuose in latino et tradusse in vulgare." The last part is only a translation into Italian of Filippo Villani's "De civitatis Florentiæ famosis civibus." To Villani's book Manetti has added in the Codex of Ripoli some addenda entitled by him "Huomini singulari." The "singular" men treated by him are thirteen of the celebrities of Florence from A.D. 1400 onwards. Five are literati and eight artists, among whom are Luca della Robbia and Filippo Brunelleschi. On seeing the last MS., Milanesi was drawn to compare it with the MS. of the anonymous life which Moreni used for his "Due Vite," etc., and he found it written in the same hand as the Codex of Ripoli. He then went to the Archives of State, and examined the Portate al Catasto of 1470 to 1481 of the Quarter of Santo Spirito, and found Tuccio Manetti's papers written in the same hand as the "Huomini singulari," etc., and the "Novella di Grasso." Besides this he compared two letters written by Manetti to Lorenzo il Magnifico which are in the very same hand. All this is very convincing. Manetti was thus quite a young man when Brunelleschi was old; but he knew him, and, being a literary man, was quite competent to write his life.

Baldinucci's life of Brunelleschi, published by Moreni in his "Due Vite inedite di Filippo di Ser Brunellesco" is little more than a paraphrase of this old MS. of Manetti's, with a few notes and one or two documents. The short anonymous notice of our architect in the "Serie degli Uomini illustri, tom. ii., p. 1, Firenze, 1770," is also drawn from the same source. Vasari is a little more voluminous; but, as far as absolute facts or proofs go, he adds but little to Manetti.

A dark veil of obscurity still entirely shrouds Brunelleschi's early life in Rome from us. Beyond the facts that for several years he was more often in Rome than in Florence, that he worked with a watchmaker there to keep himself, and studied among the ruins all his spare time, nothing whatever is known of his stay there. I have caused search to be made in the public archives, and a friend has kindly made investigations in the archives of the Vatican, but the result in both cases is nil. Brunelleschi evidently did no public work in those early days, being only an unknown apprentice, but it would be interesting to know what Pope Eugenius IV. wanted him for.

Of course, the great modern authority on Brunelleschi is Von Fabriczy's "Filippo Brunelleschi sein Leben und seine Werke; Stuttgart, Cotta, 1892," which only fell into my hands when my book was nearly finished. It is a mass of research, which appears to have collected every possible mention of the architect from books, documents, and MSS., collating the different old MSS. with true German precision. The extracts given by Fabriczy from Italian documents and codices proved a great assistance to my own subsequent research.

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CHRONOLOGY

CHIEFLY TAKEN FROM DOCUMENTAL EVIDENCE PUBLISHED BY MILANESI AND GUASTI

1377. Birth of Filippo.

1398, Dec. 19. Sworn as member of the Guild of Silk Mercers.

1401. Competes for the commission of the bronze doors of the Baptistery.

1404, July 2. Matriculates in the Arte degli Orafi (Goldsmiths).

1404, November 10. Is one of a council called to consider the work of the brackets and superstructure of the nave of the cathedral then in progress.

1405, February 16. This council was broken up and Filippo and others dismissed from office.

1409 (?). Makes two half-figures of prophets in silver for the super-altar at Pistoja.

1417, May 19. Is paid by the Opera del Duomo 10 gold florins for his advice and plans.

1417. Council of masters, in which Brunelleschi first broaches his idea of erecting a free dome and is ridiculed.

1418, August 19. Prize of 200 florins offered for the best model of the cupola, to be sent in by September 31.

1418, August 31. Begins his model.

1419, July 11. Received 15 lire 15 soldi towards the expenses of his brick model.

1420. Begins the Pazzi Chapel.

1420, April 3. General council to examine all the models.

1420, April. Puts his plan before the Opera. Model accepted.

1420, April 16. Brunelleschi, Ghiberti, and Battista d' Antonio (head of the works) elected as joint *provveditori* for the building of the cupola at 3 florins a month each.

1420, April 24. Receives 10 gold florins for his plan.

1420, May 20. Preparations for the work begun on this day.

1421, March 23. Brunelleschi received 100 gold florins for an invention of a new machine for drawing up materials.

1421. Designs a portico for the Foundling Hospital.

1421, June 19. Obtains a patent for three years' sole profit of the *badalone*, a boat invented by him to bring marbles by river.

1421, August 7. The cupola was begun.

1422, November 6. They begin the brick portion of the cupola.

1423, April 15. Receives 10 gold florins for an improved model of a machine crane.

1423, July 5. Is paid for model of the timber girders.

1423, August 27. Is paid 100 gold florins for the girders.

1423, September 24. Designs for second row of girders approved.

1425, February 5. He and Ghiberti re-elected as *provveditori*.

1425, June 28. Ghiberti's salary stopped.

1425, August 16. Foundation-stone of San Lorenzo laid.

1426, August 16. Brunelleschi goes to Pisa.

1426, September 12. Goes to Lastra with Battista.

1427, May. Goes to Castelfranco to see that certain marbles for the Duomo are sent on from Pisa and Carrara.

1427, May 13. Designs a tabernacle for the Church of S. Jacopo in Campo.

1427, November 13. Goes to Volterra.

1427-28, January 7. Is authorized to begin placing the girders.

1428-29. Church of Santo Spirito begun.

1429, March 18. Goes to Lucca in service of the Ten of War.

1429, Sept. 22. Ordered to make a model of the whole Duomo.

1430, February 15. Sent to inspect the fortresses of Rencine Staggia, and Castellina, in Val d' Elsa.

1430, March 2. Sent to the camp at Lucca.

1430-31, February 16. Brunelleschi's salary reduced to half.

1430, February 4. The brick and mortar model of the cupola built on the Piazza del Duomo in 1419 removed.

1431, April 2. Leave to go to Ferrara and Mantua.

1432, June 27. Commanded to finish a model for the lantern.

1432, December 9. Is told to order the lavabo and marble shelves for the sacristy of the Duomo ; his adopted son Andrea da Buggiano has the commission for the former.

1433, June 17. The floor beneath the dome is paved.
1434. Finishes a model of the church and dome.
1434. Called as architect for church of the Angeli.
1435, April 3. Goes to Mantua for twenty days.
1435-36. Goes with the head of the works to Pisa.
1435. Designs the new choir of the Cathedral of Florence.
1436. Goes to Campiglio to see marble for lantern.
1436, August 14. Makes model for fortifications of Vico Pisano.
1436, August 31. The cupola closed. Great rejoicings.
1436, October 26. Roofing-in of the tribunes of Duomo.
1436, October 5. Commission to make passage to organ-loft.
1436, December 31. His model of the lantern approved.
1439, March 22. Goes to Vico Pisano about Porta del Soccorso.
1440, June 14. Sent to Pisa about the fortifications.
1443. Brunelleschi elected sole *provveditore* of the cupola.
1445. The first marble of the lantern is placed.
1446, April 15. Death of Brunelleschi.

BRUNELLESCHI

CHAPTER I

THE FAMILY OF BRUNELLESCO

"FILIPPO DI SER BRUNELLESCO Architetto fu della nostra città, ed a mia dì, e conobbilo, e parlaigli; e fu di buone genti, ed onorevoli, ed in quella nacque negli anni del Signore 1377, e visse il più del tempo, ed in quella morì secondo la carne."*

This is the way in which Brunelleschi's once anonymous and contemporary biographer—now known to be Antonio Manetti—begins his life, a quaint and simple chronicle of the great man's doings, which may, I think, be fairly taken as a foundation for his biography, when amplified by later and more exact documentary evidence.

There is a pithy meaning in the sentence "in quella morì secondo la carne," for it is a certain fact that nothing of him died except the flesh. His works and

* "Filippo, the architect, son of Ser Brunellesco, was of our city. He lived in my time, and I knew and have talked with him. He was of a good and honourable family, and was born in that city in the year of our Lord 1377. He lived there almost all his life, and there, according to the flesh, he died."

inventions, even his actions, and the semblance of his person, all live still. He was not, like Giotto, a genius raised from a peasant, for his family was among the aristocracy of Florence at that era. Like most of the artists in that land of sopranyms, he has come down to posterity under a name not his own surname, but I doubt if anyone to whom he is familiar would know him as Filippo Lapi. Yet that was his right name. His pedigree, as traced by Milanesi (Vasari, vol. i., p. 386), shows him as a great-grandson of a certain doctor named Tura di Cambio dei Lapi. Tura's son was named Lippo, which was the Florentine short for Filippo, as Tura is for Ventura. Lippo Lapi married Lippa Brunelleschi and became the father of Ser Brunellesco Lapi, who was christened by his mother's surname. Ser Brunellesco married in his turn Giuliana, daughter of Giovanni Spini, a family once famous and aristocratic in Florence. They had two sons, our Filippo, and his brother Maso, who was a simple person, and became a priest. Filippo was born in 1377.*

Thus we see that Brunelleschi's family name was Lapi, but, according to Italian custom, he was called Philip of Brunellesco (just as the Welsh say John ap Thomas to this day); and when he became famous the name clung to him, while that of "Lapi" was lost sight of. Nevertheless these Lapi were connected with the

* Proof of this is given in his statement of property for the Catasto (Tax Office) of 1427, when he gives his age as fifty. The register of the Badia has an interesting entry recording the family: "Domina Giuliana, filia quondam Joannis domini Guglielmi de Spinis, uxor Ser Brunellesco Lippi, Notarii civis florentini; filippus et tomasus eorum filii" (Gaye, "Carteggio inedito d' Artisti," vol. i., p. 114 note).

ancient noble family of Lapi-Aldobrandi. We gather this from the will of Lippa dei Brunelleschi, which is preserved to this day. One clause in it is a legacy to "Carlo, Bartolommeo, e Alamanno filii quondam Ser Tommasii Aldobrandi ejus conjunctis per lineam masculinam."* A further proof is that Filippo's house was among those of the Aldobrandi, near the Piazza degli Agli, and his arms were the same as theirs—Shield vert; a wavy of three, azure; two fig-leaves vert on a chief or. This has been understood to imply that the family came from Ficherola in the Ferrara district, the waves figuring the river Po. Milanesi seems to prove that the family originated in a Maestro Cambio di Tura, who had three sons—Tura, Giunta, and Feo. The first was the father of Lippo, our Brunelleschi's grandfather; Giunta the father of Aldobrando, the head of the Aldobrandi branch; and Feo of the Fei Arrighi.

The Florentine archives only go back to Lippo di Tura, Filippo's grandfather, so it is to be supposed the family came from elsewhere. Now, the name Ventura, shortened to Tura, was prominent among the Sienese builders and artists for centuries; the first Ventura was son of Dietisalvi, of Rapolano, who worked in 1267, and had a son Andrea. There were other relatives, Ghino and Ceffo di Ventura, employed there in 1318, and others, Angelo and Simone di Ghino Ventura, in 1330. The first Ventura di Dietisalvi was probably descended from Dietisalvi who designed the Tower of Pisa, so that if Brunellesco was of this family his taste for architecture is accounted for.

But to return to Brunelleschi's own father, who was a

* Baldinucci, "Vita di F. Brunellesco," p. 156 note.

man of standing in Florence, and much respected. He matriculated in the Arte dei Giudici e Notai in 1357, and later held office in the Council of Ten, or the Balia —the War Office of those times. This council had to furnish supplies for the soldiers in time of war, superintend their pay, and engage *condottieri* from foreign countries. In quest of these Ser Brunellesco had to journey to Germany, France, Flanders, and even England, and succeeded so well that he was employed by the republic on other political missions. Thus, in 1367 he was sent by the Signoria to ascertain the movements of the Emperor Carlo IV. and his intended entry into Italy. For this Ser Brunellesco had orders to go first to the Marchese di Ferrara, thence to the Lord of Padua, next to Vienna, where he was to find out the Emperor's plans, follow him as far as Friuli, and thence return speedily to Florence with his news. The books of "Introits and Expenses of the Commune" register the cost of this mission under the heading "Ser Brunellesco Lippi, Ambasciator pro comuni Florentiæ transmissus ad partes Alamanniæ." The same books prove other embassies to Lombardy in 1368, and again in 1384; and to the Romagna in 1384.

The Brunelleschi family was a wealthy one, and possessed many houses in Florence. There was a row of houses opposite Or San Michele, which reached from San Bartolommeo to the Canto dei Cini, and a house in Via Larga (now Via Cavour) on the left hand going towards San Marco. This was where Ser Brunellesco lived, and it had been the home of his father and grandfather before him.

Our artist Filippo possessed a house of his own, in

Private photo

BRUNELLESCHI'S HOUSE, FLORENCE

(Said to have been built by himself in the Via degli Agli)

PLATE II

which he lived and died. It was near the ancient church of San Michele Berteldi, by the Piazza degli Agli, where the houses of his kinsfolk, the Aldobrandi, were situated* (Plate II.).

The tombs of the family for several generations are in San Marco, between the principal entrance and the pulpit, and were marked by a slab with the arms of the family—Two green fig-leaves above waves of water. Since the new pavement was placed, this slab has disappeared.

CHAPTER II

YOUTH AND EDUCATION

FILIPPO'S education was of that restive kind which so often falls to the lot of a genius—the father's ideals pulling one way, the boy's instincts and inclinations another. Ser Brunellesco, being a member of a learned profession, not to mention his rank as Ambassador of State, was, of course, anxious for the boy to become a man of letters. Consequently, as soon as he had learned to read and write, he was placed in one of the best humanist schools of the day. But the *belles-lettres* did not interest him; he neglected his classes, and often became so absent-minded over his lessons that he either did not hear or understand them. We are told he studied the Scriptures diligently, and now and then the

* This house, of which we give a photograph in its present dismantled state, was of good solid fourteenth-century architecture. It is believed to be Brunelleschi's own design.

poets; but his greatest pleasure was in the art of design, and instead of construing Horace, he would be found drawing houses and geometrical figures. His father was a wise man, and seeing the lad would never rise in his own guild of notaries and judges, which required a high grade of classic and literary training, he gave him his choice of a career, for in those days even rich men's sons were not educated for elegant indolence. Every young man on finishing his school curriculum was apprenticed to one or other of the civic industrial guilds, or *arti*. Indeed, a Florentine who was not member of one of the *arti* had no civil votes or rights.

On December 19, 1398, young Filippo was sworn as a member of the "Arte della Seta"; but he chose to graduate among the goldsmiths, who were a branch of the same guild. His matriculation in *oreficeria* is dated July 2, 1404. This choice gave him a chance of full artistic training, for the guild included not only modellers and workers in metal, but painters as well.

To understand the state of the case, a slight digression is here needful. In the olden days when all the fine arts were combined in the Lombard Guild, which was universal, and which gave its members the privileges of citizenship wherever they lived, there were no civic or local art guilds. But in time each city in turn formed its own distinct branches. Florence instituted her Arte dei Maestri di Pietra e Legname in 1358, the artists from the Lombard Lodge of Lucca having been employed before that time; and Siena her Arte dei Maestri di Pietra in 1441, because she found the Lombard Guild had its interests outside the city. Venice founded hers still later. The Sienese painters had seceded from the

Lombard architects in 1355; but in Florence there was never a company of painters till Cosimo founded the Academy of the Belle Arti, and that had no connection with the politics or civil rights of its members as the old *arti* had. Consequently, if the artists of the brush wished to be considered as citizens at all, they had to join one of the existing guilds. Some went into that of the Medici e Speziali, and others into the ranks of the Orefici, which had been incorporated with the Guild of Silk-Merchants. The seven greater arts were judges and notaries, calimala or merchants, doctors and apothecaries, money-changers and bankers, wool-merchants, silk-merchants, and furriers.

In 1282 the fourteen minor arts which gave the working classes some minor privileges were instituted. These were butchers, hosiers, blacksmiths, tanners and shoemakers, masons and stone-cutters (this has nothing to do with the art guild of Maestri di Pietra e Legname founded in 1358), wine-sellers, bakers, oil-merchants, dry-salters, linen-drapers, locksmiths, armourers, carpenters, and innkeepers.

No record remains to prove under which of the goldsmiths Brunelleschi worked. Vasari says it was a friend of Ser Brunellesco; others opine that it was Ghiberti's foster-father Bartolo, and that the boy was placed under him to learn to draw. He did much more than this, however, for, transplanted to this congenial soil, Filippo's talents blossomed forth in all directions; not only could he cut and set gems with the best of the goldsmiths, but his designs for gold work were most varied and artistic; his modelling both in relief and in round was marvellous. As Manetti says (p. 294): "In that art he soon became

universal, owing to his good grounding in design, for which he had marvellous talent. He became in a short time a perfect master of niello, smalto, emblazonment, and relief, also in cutting and setting gems; in fact, he succeeded in everything he touched, in a manner quite wonderful for his age."

He did not confine himself to mere manual work, but studied all the sciences necessary to the artist. Mathematics and design combined, led the talented young man to his discoveries in perspective. Indeed, Manetti gives him the credit of either the invention or revival of the science, which Paolo Uccello, twenty years his junior, did much to perfect.

The first scientific design he made in perspective was of the Baptistery of Florence. To draw it he stood within the portal of the Duomo. It was so finely done, showing all the inlaid work of black and white marble, that no miniature could have been more finished; the view included all the part of the piazza from the Misericordia to the Canto di Paglia and the column of S. Zenobio. He put in the skies with burnished silver, which reflected the real clouds being carried by the wind, and, as the chronicler says, "gave great reality to the scene."

Not only did Brunelleschi invent (or rediscover) the rules of perspective, but he invented a wholly original method of looking at such drawings. Fearful lest beholders should mistake the point of vision, he made a hole in his picture, which was painted on a thick panel of wood. The hole, which was just at the point of vision, was funnel-shaped, the wider orifice being at the back of the picture. The beholder had to put his

eye at the back of this hole, and hold a mirror the size of the design at arms' length, facing the picture. Thus he saw it reflected in the mirror with a stereoscopic effect of depth and reality. As the writer says: "You seem to see it in very truth, and I have had it in my own hand, and have seen it several times in my days, so I can bear witness to it."

Filippo made another design on a larger scale of the Palazzo Vecchio, which he took from the corner of Calimala, near Or San Michele, but this was provided with no sight-hole and reflector. "One might ask," says Manetti, "why he did not make for this picture, which was equally drawn in perspective, that little sight-hole, as he did to that of the Baptistery. This is by reason of the picture being so large—there being so many things to represent in it—that it would be impossible for a person to hold the picture with one hand. Nor would the arm of a man be long enough to get the mirror at the right distance to reflect it, nor strong enough to hold it steady."

Only one effort of Brunelleschi's in painting is vaguely chronicled. From the Gaddi Codex, Fabriczy (p. 443) quotes: "And in the house of a Florentine gentleman he painted with his own hand a picture of our Blessed Lady, a miraculous thing" (*cosa miracolosa*).*

* The only existing specimen of Brunelleschi's drawings known is in the room of original sketches in the Uffizi Gallery. In the revolving frame, No. 509, Design 212, is a very rough note of the proportion of the arches of the chapels in San Lorenzo, in regard to the great pier. It gives in a few lines, roughly drawn, a pier at the corner of the tribune with half an arch, and a bit of a foreshortened arch at right angles to it. At the side of the pier is a shorter Corinthian pilaster with the

Vasari has a very pretty story that the great scientist, Paolo Toscanelli, who is said to have given Columbus the advice to "sail to the West to find the East," and so sent him to discover America, was Brunelleschi's master in geometry and mathematics. He says they met at a supper-party in the garden of a friend, and that Filippo was so struck with the geometrician's conversation that he formed a friendship with him, and became his scholar; that, as Filippo had no book-learning, Toscanelli taught him by practical demonstration, and that Filippo imbibed the science so rapidly that his logic often astonished his master. The contemporary author (Manetti), who knew Brunelleschi, says nothing about this instruction, and for a good reason. When Brunelleschi, in 1404, was already a qualified master, Paolo Toscanelli was a boy of seven years old. He was born in 1397, twenty years after our architect, who in 1401 was already employed on restorations in the Palazzo della Parte Guelfa, and must certainly have studied both geometry and mathematics.

Vasari's assertion that he had no book-learning also requires qualification. There were certainly two books he cared for extremely—Dante and the Bible. Vasari himself says his memory for quoting Scripture was prodigious, and that Toscanelli used to say "Filippo talked like St. Paul come to life again." His delight in Dante was not so much a poetical as a scientific

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spring of the lower arch of one of the side-chapels. The windows above the chapels are indicated by arched outlines on one side of the drawing, and square ones on the other. The architect was evidently only trying the effect of both forms, and in the end adopted neither, as the windows are circular.

pleasure. He enjoyed making mathematical plans of circles, sites, and "bolge," with their measurements, and talked for hours demonstrating and comparing them.

Before leaving his youth, we must say a few words as to the personal appearance and qualities of Filippo Brunelleschi.

He was one of the "little great men" whose minds rule the world through the physical drawback of a mean personality. Vasari begins his biography, and Baldinucci ends his, by dwelling on the extreme plainness of Filippo's person, softening it by many proverbial sentiments, such as "a lump of earth often hides a vein of gold." "Nature does not feel obliged to enclose every gentle soul in a beautiful body." Vasari makes merry over him by saying he was as plain as "Messer Forese di Rabatto e Giotto,"* but of such elevated genius that he seemed sent from heaven to bring back that true form to architecture, which for centuries had been lost.

The most authentic portrait of Filippo is, of course, the mask in plaster taken from his features after death, which is in the Opera del Duomo. The one which most closely assimilates him is the medallion relief in the Duomo, by Buggiano, his pupil and adopted son.† There is a good engraved profile likeness of him

* Messer Forese di Rabatto was a learned lawyer of remarkably ugly exterior, the subject together with Giotto (who was equally plain) of Boccaccio's Novella V., Giornata VI. He is said to have been small and deformed, with a flat and wrinkled face, but so learned in law that he won the respect of everyone.

† See frontispiece.

in the "Serie degli uomini i più illustri . . . incisi in ramo," an anonymous work published in Florence in 1770. Cinelli* speaks of a portrait of Brunelleschi, together with that of Donatello and other famous men of that time, which once existed in a fresco in the first cloister of the Carmine. When the cloister was squared (*riquadrato*), a wall was built up without injuring the pictures. It would be interesting to find whether that fresco is still in existence.

Pampaloni's statue by the wall of the Seminary on Piazza del Duomo gives a too majestic appearance to be quite true to the original (Plate III.). Vasari, in his frescoes in the Palazzo Vecchio, has painted the portraits of both Brunelleschi and Ghiberti holding the model of San Lorenzo. He represents Filippo kneeling, dressed in a purple cloak, with the hood over his head. Lorenzo is a bald man standing by, holding the model together with him.†

As for moral virtues, Filippo seems to have been an epitome of them. Vasari tells us he was adorned with virtues, the principal of which was friendship, for no one was more kind and lovable than he. He judged without passion, and where he recognised the merits of others, he subordinated his own interest to that of his friends. He knew himself, and showed others the high grade of his endowments. He was the enemy of vice, and lover of all that was good. He never spent time in vain, but was always doing something either for him-

* Cinelli, "Bellezze di Firenze," p. 336.

† Vasari himself describes these figures in a curious little book he wrote entitled "Ragionamenti sopra l' Invenzioni dipinte in Firenze nel Palazzo di Loro Altezze Serenissime, ora Palazzo Vecchio." It is in the form of a conversation between himself and the Grand-Duke.

Alinari photo *Piazza del Duomo, Florence*

FILIPPO BRUNELLESCHI

(A statue by Pampaloni)

PLATE III

self or for others, or else visiting his friends or assisting them.

Baldinucci, repeating much of this, adds that no one could be more acute in conversation or in wit, and so generous was he in judgment that he would waive his own opinion in favour of others, even though he knew his own work to be better, and was keenly alive to other people's bad drawing and designs; that he was so humble that he never grew vain even in the midst of the applause of the whole city. "One never heard him praise his own works, or condemn those of others." "He esteemed everyone, and was amiable to all."

This seems slightly exaggerated, and is not quite borne out by the events of his life. That he envied Ghiberti, and was anything but amiable to him, was apparent. That he did not like the masters of the Opera, and was extremely restive with them, is also undeniable.

Manetti, who knew him personally, struck a much truer note: "Notwithstanding that he outshone others in many things, by means of which he led his own times and succeeding ages, yet one never heard him boast nor vaunt himself; but when occasion arose he demonstrated his superiority by facts. He was never ill-tempered, *unless he was much provoked, either by being put to shame or insulted.* He was loving to his friends, and liked to praise those who desired his company and received him willingly; and in this, as in other things, he was very clear-sighted and sensitive."

Here we get precisely Filippo's weak points, as well as his strong ones. Every action of his life shows that he had a stronger belief in the power of Filippo Brunel-

leschi than in that of any other man living. Where this innate power was recognised by others, he was amiable; where it was ignored or disbelieved in, he was displeased; but so sure was he of his own strength that he forced even his strongest adversaries and fiercest opponents to recognise it. I fear he was not above putting his rivals to public shame in his determination to assert his own supremacy. He evidently disliked rivals on his own ground, but could generously recognise merit in other fields. His two greatest friends, Masaccio and Donatello, were not his rivals, Masaccio's art being quite distinct from his own, and Donatello a young worshipper at the shrine of Filippo's genius. He was jealous of Ghiberti, who, after defeating him in competition, was associated with him in a work of which he rightly claimed the whole credit; and he was contemptuous of Leon Alberti, who clung to Vitruvius and the schools, where he aimed at originality in architecture. There was also a strong element of selfishness, or, rather, self-seeking, in his character—a reluctance to let anyone else profit by his knowledge. He even refused to divulge his discovery of a means of moving more easily the large blocks of marble, which would have been of inestimable use to architects, because he did not wish others to share the benefits with him.

In fact his motto was *Aut Cæsar, aut nullus*, and it was in a sense justified: the imperial power of genius was within him, and he knew that it must assert itself. His character was entirely different from that of any of his friends—from Masaccio's happy-go-lucky insouciance; from Ghiberti's painstaking, nervous striving after the highest, and doubt in his own power to attain to it; and

Alinari photo *Pistoja*

THE SILVER REREDOS OF THE ALTAR

PLATE IV

from Donatello's happy genius, that always struck true, though he did not know his own power, and his unselfish nature, that was enthusiastic over other people's success and diffident of his own. Brunelleschi was never diffident of his own powers, but he disliked expending them for the benefit of others.

CHAPTER III

BRUNELLESCHI AS A SCULPTOR

FILIPPO'S earliest bias in art was undoubtedly towards sculpture, and it seems to have been more a matter of temper than of temperament, which decided whether he should be the finest architect of his age, or a tolerably good sculptor, though probably not the best of all. His chagrin after the competition for the doors of the Duomo was the spur that sent him into his natural groove. Beyond his drawings in perspective, which, after all, belonged to architecture more than to art, we have a mention of only one painting done by him, although he did good work in smalto, which is in effect a style of miniature painting; but with encouragement —on which he depended greatly—he might have been renowned in sculpture, an art to which gold-working is much allied.

It was probably during his apprenticeship, or on his matriculation as a master in the Arte dell' Orefice, 1404, that he had the commission for the two silver half-figures of prophets on the super-altar at Pistoja (Plate IV.)—a splendid work in which many of the

fourteenth-century artists took part. Ciampi ("Sagrestia de' Belli Arredi," pp. 80, 82) dates them 1409, but he has no documental proof, and as both Baldinucci and the contemporary biographer lay great stress on Filippo's extreme youth, although a master at the time, the date of 1404, soon after his matriculation, is most likely the true one. He was then twenty-seven years of age. The two reliefs attributed to him are the two dignified half-figures of prophets in high relief at the two extremities of the line of saints beneath the central statue of the superaltar. They were even in his own time judged very fine, and showed him as a master in his art.

Brunelleschi's life during his art apprenticeship must have been very pleasant. He was surrounded by men of congenial taste; his work was all of the kind he loved best—at least, at that time, for his architectural talent developed later. He was in touch with all the best artists of the time, for his rank as a master in the Goldsmith's Guild brought him into relations with the Opera, or house of administration of the Guild of Maestri di Pietra e Legname, where he met all the architects and sculptors then in Florence. He was a great friend of Masaccio, to whom he imparted his discoveries in perspective; no doubt the younger of the two, who was a boy-student, while Filippo was a full-fledged master, looked up to his teacher with that respect which he most liked to inspire.

Lorenzo Ghiberti was within a year of the same age as Filippo, and as far as sculpture and gold-work went, they worked together, so that it is possible that the rivalry between them, which became so marked in later life, began even in the studio.

Brunelleschi seems to have been especially fond of young Donato di Niccolò di Betto Bardi (Donatello, or little Donato), who was nine years younger than himself. Donatello looked up to the elder artist with a worshipping admiration for his genius, which formed a great bond between the two, and is so prettily illustrated in the oft-told story of the crucifix. The character of the two comes out so strongly in this, that I feel obliged to repeat it here in spite of its being a well-worn tale. The lad Donatello had carved in wood a crucifix, which he thought the best piece of work he had done yet, and, eager to have it appreciated by one whose opinion he valued, he asked Filippo to come and see it. The sculptor unveiled his Christ, and looked anxiously at his friend's face. Alas! he only saw a smile, as a man might smile at the work of a child. The boy appealed to Filippo as a true friend to give his opinion, and he, who never shrank from saying exactly what he thought, told poor Donato that his modelling was so coarse it seemed as if he had crucified a peasant. He added that the body of Christ, being perfect in all its parts, should be most delicately and finely modelled.

The mortified Donatello naturally took fire at this, and told Filippo to get some wood and show him how to carve a Christ, if he could. Anything in the nature of a challenge was a spur to Brunelleschi. He took his young friend at his word, and went home and shut himself in his room, carving earnestly at his conception of a crucified Saviour. Having at length satisfied himself, he in his turn called in his friend to see his work. He made it quite a dramatic surprise by

merely asking the young man to accompany him home to dinner, but saying nothing about his crucifix. The two stopped in the old market by the way, and bought some eggs, cheese, fruit and nuts for the meal. Giving these to Donatello, Filippo sent him on before, while he procured the wine. When Donato entered the room, the light was falling full on the beautiful carved figure of Christ. He stayed a moment in amazement; then, recognising the noble lines of the figure, he opened his arms in the true old Tuscan attitude of admiration, and forgot all the things he was carrying in his sculptor's apron, till Filippo, coming in at the door, and seeing everything on the floor, cried:

"What are you doing, Donato? How are we to eat our dinner if you have broken all the eggs?"

"Oh," cried the generous lad, "never mind the eggs; for my part I have had enough," adding sadly, "'Tis true, to you it is given to carve a Christ; I can only make a peasant."

We give an illustration of this storied crucifix, which, if compared with that of Donatello, in Miss Rea's volume of this series on that artist, will be seen to have better modelling, and more refined and religious feeling, though the difference is not so very wide as to have caused the younger student so much mortification. The date of this incident is not known, but, as Vasari speaks of it as preceding the competition for the doors of the Baptistery in 1401, it must have been during Filippo's apprenticeship—*i.e.*, when he was about twenty-four years old, and Ghiberti twenty-three. If so, Donatello was only a boy of fifteen, and it is not to be wondered at that his modelling and technique had

Alinari photo *Church of Santa Maria Novella, Florence*

CRUCIFIX CARVED IN WOOD

PLATE V

not yet reached perfection. Cicognara* thus compares the two works: "Donato's crucifix is rigid, ignoble, without abandon and without softness, with neither grace nor elevation of idea. The subject is certainly a difficult one to express, even for an artist endowed by a high ideality, and where Nature has but slightly supplied this, it is still more difficult to command the hand. Brunelleschi overcame all these difficulties with wonderful skill, and the nobility of form and the languid lassitude of a gentle and suffering person were expressed with such mastery that Donato was seized with wonder." Cicognara thinks that this experience was the moving cause which afterwards led Donatello to such deep study and expression of passionate feeling (Plate V.).

The crucifix was not the only work he did in competition with Donatello, if we may believe the older biographers. Fabriczy quotes from three codices—the Petrei, Strozziana, and Gaddiano, that "a gara di Donatello" Filippo (and Donatello) made statues of St. Mary Magdalen, and that Filippo's was a marvellous work. The Strozziana codex says it is a "cosa eccellentissima senza comparatione" with that of Donato. This work can never be judged again, for, unfortunately, it was destroyed in 1470 by the fire in the older church of Santo Spirito, which was still being used while Brunelleschi's new building was in progress.†

* Cicognara, "Storia della Scultura," tome ii., cap. ii., p. 43.

† The cause of the fire was one of the grand spectacular celebrations which the artists of the time were so fond of designing. It was part of a fête got up by Lorenzo dei Medici, in honour of the state visit of Gian Galeazzo Visconti in Lent on March 13. At the Church of the Annunziata they represented the "Annunciation of the Virgin;" in the Carmine the "Ascension of Christ;" and in Santo Spirito the "Descent

The crucifixes led to other works. The Butchers and Linen-weavers' Guilds gave the friends a commission for two statues to be placed in their respective niches in Or San Michele. The former company chose a St. Peter, the latter St. Mark. It is said by Vasari that Filippo withdrew from the execution of this commission, leaving Donatello to fulfil it alone. Certain it is that the debit and credit account of the Linaiuoli (Linen-weavers' Guild) proves that the commission and payment for St. Mark were made to Donatello.* Probably, if it happened soon after the unlucky competition for the Baptistery gates, Brunelleschi had still fresh on his mind his hasty renunciation of an art in which others were preferred before him.

This competition was the turning-point in the life of Brunelleschi, the point at which he abandoned sculpture and dedicated his genius to architecture. In 1401 the Arte della Lana, patrons of the Opera del Duomo and all its works, proclaimed a competition for the projected new doors of the Baptistery. Any artist in metal who wished to compete, was to model and cast in bronze a design representing the "Sacrifice of Isaac." The size and geometric shape of the framing of the subject was given; all besides was left to the artist himself. A year was allowed for the work.

Filippo Brunelleschi's ambition was immediately fired; he threw himself into the work *con amore*, and long before

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of the Holy Ghost on the Apostles." Some of the candles on the high altar were too near the great edifice of gauze and cotton-wool representing the clouds of heaven, and the whole arrangement caught fire.

* See Gualandi, "Memorie di Belle Arti," serie iv., pp. 104, 107.

the appointed time his panel was complete. He was of an independent mind, and took no counsel of anyone; he neither changed nor modified his first design, but, sure of his own inspiration, he modelled rapidly and firmly.

One of his rival competitors was Lorenzo Cione, who had been trained in the goldsmith *bottega* of his stepfather Bartolo Ghiberti, where some writers think Brunelleschi was also apprenticed. Lorenzo showed great talent both in painting and sculpture as well as n gold-work. For a year past he had been in the Romagna to avoid a visitation of plague, and some political disturbances in Florence; but on the proclamation of the competition his stepfather recalled him at once to Florence from Rimini, where he and a friend had been painting frescoes for Signor Pandolfo Malatesta. He, too, promptly decided to compete, but his methods were very different from Brunelleschi's. He had fears and doubts which never assailed that strong self-supported genius. He was afraid he would never be able to rival Filippo, whose talent he recognised; he doubted his own powers; made one design after another, and took the opinion of master after master on their merits. He changed, improved, polished and touched up so often that before he was himself satisfied the day of destiny had arrived. His master and foster-father Bartolo took a very great interest in his relief, and constantly urged his son to polish, improve, and refine the work till it reached perfection.

These two were the real rivals, for the other competitors never had a chance against them. Vasari says in Ghiberti's life, and Baldinucci follows him, that

Donatello sent in a panel which was judged good in design but faulty in execution; but as he does not mention the event in the life of Donatello himself, and as that artist was only fifteen at the time, Milanesi, on Cicognara's authority, doubts the assertion. Jacopo della Quercia was a more formidable competitor, being a qualified and clever artist of thirty years of age from the Sienese school. However, although his relief was pronounced to be admirably drawn and well modelled, it was defective in the perspective and distribution of the grouping. Francesco di Val d' Ambrina's composition was poor, and the two others, Simone da Colle and Niccolò d' Arezzo, worse still. The choice then lay between Brunelleschi and Ghiberti, and each of them had his partisans. Some said that Lorenzo Ghiberti's might have been done by Polycletes himself, and, indeed, no one on studying the two reliefs can deny that Ghiberti's has more dignity and religious feeling. The angel, which in Filippo's seems to rush fiercely at Abraham, in Lorenzo's flies down in peace and mercy. Abraham's attitude in the first is impetuous, not to say savage; in the second reluctant obedience is visible. Filippo makes his attendants waiting with the ass both incongruous and indifferent. He has copied one from the well-known ancient statue, now in the Uffizi, of the boy taking a thorn out of his foot, but he has draped him in a Roman toga; the other man stooping near the horse is a Roman soldier with a helmet very unsuitable to a story of Abraham, though the modelling is very fine indeed (Plates VI. and VII.). The judges were, however, much struck by this fine modelling, and the masterly way in which great difficulties of position

Brogi photo *Bargello, Florence*

THE SACRIFICE OF ABRAM, BY GHIBERTI

PLATE VI

Brogi photo *Bargello, Florence*

THE SACRIFICE OF ABRAM, BY BRUNELLESCHI

PLATE VII

were overcome. A great and animated discussion took place in the large council-room of the Opera, where the consuls of the Arte della Lana and the *maestri* of the Opera were to decide. It was at length proposed to give the commission jointly to the two artists, it being a long and arduous undertaking, and affording scope for the genius of both.

"But to this," says Manetti, "Filippo would never consent. Unless the work were to be wholly his own, he would not touch it, not being inclined to share his honours with anyone else."

"Then," said the consuls, "we must give the whole commission to Lorenzo."

Brunellesco answered brusquely that if they did not give it to him they might, for anything he cared, give it to Ghiberti; he should not interfere with their judgment.

With this he went away, and the commission was given to Lorenzo. Vasari, who, being an enthusiastic lover of Renaissance architecture, lauds Brunelleschi to the skies, goes into ecstasies at his magnanimity in pronouncing Ghiberti's relief to be much superior to his own, and advising the consuls that it was their duty to give the commission to his rival. This version is also given in the "Serie degli uomini i Più Illustri," Florence, 1770; but it does not tally with Ghiberti's own account of the verdict. In his MS. "Commentario" (Codice No. 33, Classe XVII., Magliabecchian Library) he reports the result in curious old Italian as follows: "The palm of victory was conceded to me by all the judges and those who were with them. The glory was universally given to me without exception by everyone in that great council, and on the examination of experts. The *operai*

who ruled, wished the written opinion of many skilled men who were competent to judge; among them were painters, sculptors, and goldsmiths. The judges were thirty-four, from the city and the neighbourhood. The votes subscribed in my favour were given by consuls and *operai*, and by all the body of the Arte della Lana, which at that time governed the temple of St. Giovanni Battista.'

This, though over-jubilant, is emphatic enough. Vasari's version, too, does not tally with either the character or future actions of Brunelleschi, which were undoubtedly marked by chagrin. He turned away from the hall with his faithful young partisan Donatello, saying that "he would go to Rome and study an art in which Ghiberti could not rival him." Donatello, who would at that time have followed his friend to the end of the world, decided to accompany him.

Filippo afterwards made a present of his useless model to Cosimo de' Medici (Pater Patriæ), who placed it in the super-altar of the sacristy of San Lorenzo. The Grand-Duke Leopold in later years obtained it from the Canons, and the two fateful panels are now side by side in the room of Florentine bronzes in the Bargello.

Had this competition ended otherwise, Michael Angelo would never have named the door the "Gate of Paradise"; it would have been an incongruous mixture of classicality and Scripture. The fate of Italian architecture also might never have been changed, for that visit to Rome really resulted in the rise of the Renaissance style, in which Brunelleschi was the art-ancestor of Michael Angelo.

CHAPTER IV

FILIPPO LEARNS FROM THE ANCIENTS

WEAK characters sink into annihilation under great discouragement, but strong ones rise to greater heights by making stepping-stones of their failures. When Brunelleschi shrugged his shoulders and left sculpture behind him at the meeting of the Opera, his belief in his own power was not one atom shaken by his rejection. He said: "I will go where I can study better sculptures than these, and, moreover, learn an art in which this rival at least cannot compete with me." And he went straight to Rome. Donatello, as we have said, was ready to follow him anywhere; but Rome had especial attractions also for him. There were fine antique works of art to be studied; not all that we see now, for the Laocoon and others were not found till nearly Raphael's time, but quite enough to form a good school for a youth who loved art.

Filippo sold a piece of land to obtain means for the journey. How Donatello got funds together I know not; possibly his patrons the Martelli helped him. We are not told how they travelled—probably, as many other artists did, they made a pilgrimage on foot—but Manetti gives us a very clear idea of what they did when they arrived there. They found work in the goldsmiths' shops, where we are told that Brunelleschi made several timepieces and alarm clocks, and that the multiplicity of springs and ingenious wheels set him thinking of larger machines which might be constructed

for carrying or lifting weights, etc. He spent his working hours then in the goldsmiths' *botteghe*, earning money for his other and more important studies in architecture.*

While Donatello rarely looked at a building, but made drawings of every frieze or statue he came across, Brunelleschi was minutely inspecting all the ruins, drawing plans of them, measuring the thickness of walls, the portions of columns and arches, the size and shapes of bricks, the dovetailing of blocks of marble, etc., writing down all his notes and calculations on strips of parchment that had been cut off in the shop, in squaring sheets of designs. He had a special written character which only he himself understood. He soon learned to distinguish the different styles and orders, and made drawings of Doric, Ionic and Corinthian capitals, which he used later in his buildings. He imagined Rome as it was in the times of the Emperors, and in thought restored all the temples to perfection. So enthusiastic was he over classic architecture that he intended to restore a more pure and simple grandeur to the art, which he thought had deteriorated in the hands of the Lombard and local building guilds.

The two friends lived in lodgings, not caring much what they ate and drank, or how they dressed. It was quite enough to be free after setting jewels and working in gold all day, to go to the Forum and prowl about. Filippo soon found that he and Donatello had utterly diverse objects in study, and after a time they fell into a habit of going each his own way. Filippo was so

* Baldinucci thinks it possible that Filippo worked with Lorenzo della Volpaia, a famous Florentine clockmaker then in Rome.

earnest that he spent much money in hiring labourers to excavate where he especially wanted to study a ruin from its base. Sometimes he would himself dig and search about, so earnestly examining stones and fragments that the Romans dubbed them the treasure-seekers. "It is true," says Manetti, "that sometimes they found a silver or a gold coin, or an intaglio on cornelian or chalcedony, or a cameo," an assertion which Vasari magnifies into "an old earthen jar full of medals."

There was one thing which very much puzzled Brunelleschi—*i.e.*, the number of square holes in the large stones used by the ancients in building. Some archæologists have thought these were for sustaining the marble facings, but the position of them is not always favourable to that purpose. Brunelleschi thought and thought again. At last he decided that these holes must have been for the better grip of an instrument for moving them. Not knowing what instrument the ancients used, he imagined one, and this gave him the idea of the *ulivella*—a species of grappling-iron, by which very large stones could be lifted by the crane without cords. It proved a most useful machine to masons and others, and was greatly used by him in the Duomo.

The different kinds of Roman masonry also furnished him with food for thought, and in studying these he realized the great help the dovetailing* of blocks of marble would be in sustaining a curved fabric such as an arch or dome. But most of all he gave his attention to the way the Romans built their domes, for he knew how the projected dome of the Florence Cathedral

* The Italians call this *coda di rondine*.

was, on account of its immense size, occupying the minds of the masters of the Opera, and his ambition took the high flight of achieving this problem single-handed.

And now he fell into his usual habits of secrecy. He did not even tell Donatello what he was doing, but let him go back alone to Florence, leaving him in Rome. Then he would betake himself to the Pantheon. How he managed I cannot say, but he got on the roof, and must have taken off some tiles to inspect the ribbing of the vault. He discovered the way in which the stones were so dovetailed one into the other as to be almost self-supporting, and it led him to imagine how a double dome might be built for the largest church; he realized how cross-beams might help to gird the ribs together, and how a second dome within would strengthen the whole. In fact, from the single-roofed Pantheon he evolved the double cupola of Florence. After endless measurements and calculations the great idea of his life took form in his mind. Let Ghiberti make his doors and be famous, he would not begrudge it to him; but he, Brunelleschi, would teach all the masters how to make the very biggest dome in the world, and be famous in all generations.

CHAPTER V

ARTIST LIFE IN FLORENCE AND ROME

AFTER two or three years in Rome Filippo returned to Florence, and there, on July 2, 1404, he matriculated in the Arte degli Orefici, his studies in the gold-shops in

Rome having completed his qualifications. There exists some uncertainty about his life for the next ten years. Some authors say he returned to Rome and spent most of his time in studying ancient architecture there. Certain it is he began about this time to be known as an authority on the subject, for Manetti says: "Whenever Filippo let himself be seen in Florence, he was pressed into consultations about both private and public edifices.* Even before he went to Rome at all, his name is mentioned in connection with the Opera di Sta. Reparata. This was in November, 1404, five months after his matriculation as *magister aurifex*. The Latin document given entire in Guasti's "S. Maria del Fiore" (pp. 299, 300) is to this effect: "Those noble men (*nobiles viri*) the *operai* of the Opera of Santa Reparata, with the intention of fulfilling with due diligence all that pertains to their office regarding the construction and building of the said Church of Santa Reparata, with one consent and will elect and nominate as *probi-viri—i.e.*, members of a special council—the undersigned consuls of the Art of Wool, and the undermentioned 'masters' and citizens." Here follow four names of the consuls of the Artis Lanæ, and nineteen special councillors chosen from the higher members of the Building Guild and the Goldsmiths' Company.

Among the former were Bernardus Vanni Vecchietti, *magister;* Nanni Renzi, *magister*, a Lombard, etc.; and among the goldsmiths Bartolus, *aurifex;* his son Laurentius Bartoli (Ghiberti); and Filippus Ser

* "Due vite inedite," etc., p. 314.

Brunelleschi, *aurifex.* The *caput magister,* Giovanni d' Ambrogio, was present.

The meeting was convened *in loco residentie dictorum operariorum,* and was called to judge whether an error had been made, or any improvement could be suggested, in the brackets and superstructure of the edifice which had been begun. This appears to have been the usual Lombard row of brackets to strengthen the wall at the top, and support the roof.

It was decided to place the brackets (*sproni*) more prominently, and to build on them a gallery with a parapet. This perforated sculptured gallery is one of the great beauties of the Duomo, fringing the walls on the summit like lace-work. Between this and the arched gallery, which was begun round Brunelleschi's dome, lies all the difference between Lombard Gothic and Renaissance architecture, though only thirty years lies between them. Certain other resolutions as to the windows of the façade were passed by this council, this part of the work being confided to four masters, always under the rule of Giovanni d' Ambrogio, the Lombard *caput magister.* It does not appear that Brunelleschi took any part in the argument, the principal speeches reported being by the masters themselves. He probably only gave his vote with the others. On February 16, 1405, this council seems to have been either dissolved or diminished; for, with the concurrence of the *operai,* five of the councillors, among whom were Ghiberti and Brunelleschi,* were dismissed and removed from office in the Opera of Santa Reparata.

As no signs of Brunelleschi's presence remain in

* Guasti, "Santa Maria del Fiore," p. 302.

GALLERY FORMING THE EXTERNAL CORNICE ROUND THE NAVE OF THE CATHEDRAL.

Florence for some years after this, it is probable that these were the years he passed in Rome, on his second visit there.

Vasari says he formed one of a meeting of the *maestri* (consuls of wool) and *operai* at the Opera del Duomo, which was held in 1407 to consider the means of building the dome, when Filippo said it would be needful to abandon Arnolfo's plan and to raise the drum and form a better support for the dome; but Manetti does not mention it, and the books of the Opera have no entry of it. Milanesi thinks the date was an error of Vasari, who wrote 1407 for 1417, when the aforesaid meeting was reported by all the authorities. After his first visit to Rome with Donatello, Filippo was certainly there again and alone, for there was scarcely a stone or building in the ruins of Rome which he did not draw or make a note of.

It was on one of his visits to Florence—probably when he matriculated—that we get a characteristic picture of the life of the time. Doni, in his "I Marmi," shows us with graphic humour the Florentines of the fifteenth century sitting in groups on the seats round the Duomo in the cool of the evening, chatting in quaint and humorous style, after their work in the *botteghe* was finished. Here one evening sat Filippo Brunelleschi, with some other artists, and talked at sunset.

Donatello, who had returned from Rome before his friend, was telling of the wonderful things he had seen on his way home, such as the marvellous Bible in marble which the Lombard and Sienese masters were sculpturing on the façade of the cathedral at Orvieto. Then he spoke enthusiastically of a wonderful classic sculpture

Brogi photo *Cortona*

ANTIQUE SARCOPHAGUS ON WHICH IS REPRESENTED A COMBAT OF AMAZONS

PLATE VIII

which he had seen at Cortona, where he rested on his way. It was a Roman sarcophagus which had been discovered buried in a field near the city, and represented the battle of the Centaurs and Lapithæ. Donato's raptures about the perfect modelling in this antique treasure so worked on Brunelleschi's love of classic art that he felt he must see it at all costs; so, without saying a word to anyone, he set off just as he was in his hood and mantle, and his wooden shoes (*zoccoli*), and walked to Cortona, where he was so delighted with the sarcophagus that he made a drawing of it with which he astonished Donatello on his return (Plate VIII.). Vasari speaks of his continuing his journey to Orvieto after this, but Manetti does not mention it. Probably the wooden slippers are a mere figure of speech, and he saw the work on his way back to Rome.

Again in 1409 we hear of him in Florence, not in connection with art or architecture, but as the author of one of those portentous *burle* (practical jokes) which were so dear to the cinque-cento Florentine. The prank played on Grasso Legnaiolo (the fat carpenter) was quite as elaborate as the famous one perpetrated by Lorenzo dei Medici on Maestro Manente when he made him believe he was dead and had been to Inferno.* I should not quote the Grasso story here, were it not that, though the *novellieri* have for some centuries made it into legend, the facts are vouched for as true by the celebrated Padre Stradino, Giovanni Mazzuoli, by Filippo's contemporary (Manetti), and by Manni, who has verified it by contemporary documents. It forms also a good

* For an account of this see the second edition of "Echoes of Old Florence," published by Flor and Findel, Florence.

personal picture of Brunelleschi the man among his friends. There was then a certain Manetto Ammanettini,* a very clever wood-carver, intarsia-worker and joiner, who had his *bottega* near the Baptistery. Of course everyone was more known by a nickname than by his own, and Manetti was always called il Grasso (the fat one). He was a stout, good-natured fellow, and, being of a simple nature, was rather a butt for jokes among his friends. One day Brunelleschi, being in a merry mood, planned with Donatello and others a huge *burla* for Grasso, and even got some of the officials of the Esecutore to help them. When Filippo was in Grasso's *bottega* one day a boy came and called Filippo home, saying his mother was ill. Away he went, but instead of going home he locked himself into the house of Grasso, whose mother was away in the country, and when the worthy carpenter came home, his own voice seemed to answer him from within. So cleverly did Filippo imitate his speech that the poor man was puzzled. He asserted himself; but the spurious Grasso within not only called him Matteo, and told him not to try

* The Ammanettini in olden times had their houses on the Piazza del Duomo, but when they were pulled down in 1389 by reason of the building they moved to Via dei Macci, where their descendants lived till 1470. The family were all either painters or artists in wood. Manetto went to Hungary with Pippo Spano, and became so famous there as artist and architect that he was quite a familiar of the Emperor Sigismond, and the Republic of Florence appealed to him to use his interest to induce the Emperor to come to Italy. In 1427, before he went to Hungary, he had 1,790 florins in the Monte; by 1446 he had 3,820.—Preface to "Opere istoriche edite ed inedite di Antonio Manetti. Matematico ed architetto Fiorentino del Secolo XV. Raccolte per la prima volta e al suo vero autore restituite da Gaetano Milanese." Firenze, Le Monnier, 1887.

and take him in; then he seemed to be telling his mother, who appeared to have returned, how, when he was in his shop, Filippo was called home to his mother's death-bed.

"This," thought Grasso, "must be me inside, for no one else can know that." On hearing the mock Grasso scold his mother roundly for being away two days, and bid her make haste and prepare his supper in a voice which the real one could have declared his own, he was nearly fainting, and demanded: "Who, then, am I?" As he went in a dazed manner down the street, Donatello came along, and said, "Oh, Matteo, do you want Grasso? He went home some time ago." In despair he tottered forward and fell into the clutches of Brunelleschi's accomplices, the officers of the Mercanzia (Board of Commerce), who promptly hailed him as Matteo and arrested him for debt. It was useless for him to swear he was not Matteo, for Matteo's own brothers, who were also in the jest, were called as witnesses, and declared he was their brother. The debt was proved from the books of the Mercanzia, and Grasso was clapped into the debtors' prison, where some other debtors treated him to supper. After which he got so confused that he could not decide whether he was Grasso or Matteo. When next morning even Messer Francesco Rucellai, who had been at the supper when Brunelleschi planned the joke, witnessed against him at the trial, calling him Matteo, he gave it up, and only puzzled himself by imagining, if he were Matteo, who the former Matteo should be now. The brothers of the real one, after a day or two, paid the debt, and poor Grasso was released, but in a state of the greatest perturbation of mind.

He did not know where to go home! At length he went to Matteo's house, where his supposed brothers fed him, and gave him strong wine, then put him to bed. In his sleep, Brunelleschi and his six friends carried him off in a *zana* (a large flat basket), and placed him with his head at the foot of the bed in his own room, his mother not yet having returned.

He got so mercilessly laughed at by all Florence, and his mother was so irate at his simplicity, that his life became a burden to him; and he decided to go to Hungary with the Captain-General of the Hungarian forces, Filippo Scolari (Pippo Spano), for King Sigismondo had bidden Spano to bring him some good artists from Florence. This is the Pippo Spano for whom Brunelleschi in later years began the church of the Angeli which was never finished.

But to return to our architect. He had not entirely given up sculpture since Ghiberti began his doors, but it was only with a half-hearted interest that he continued to practise it in turn with his greater art—architecture. In 1415 Donatello and Brunelleschi had a commission for a figure to be carved in stone and covered with gilded lead—a peculiar style of art, certainly, which was to stand on one of the brackets of the Duomo.*

For some reason this work dragged out unfinished till 1416, when the books of the Opera show that Filippo

* Guasti, "S. Maria del Fiore," p. 316, An. 1415, Ottobre 9: "Stantiaverunt . . . Donato Niccolai Betti Bardi et Filippo ser Brunelleschi intagliatoribus, pro parte solutionis ejusdam figure marmoris vestite plumbi aureati, florenos decem auri, quam facere debent pro opera" (Delib. LXVIII. 36).

received 10 florins on account for it. This statue, in which Filippo evidently showed little interest, was the cause of some annoyance to him; for on January 29, 1415, he was threatened with imprisonment at the pleasure of the *operai* if he did not before February 5 supply Donatello with lead sufficient to finish the figure.*

This large figure was one of a series which were to have been placed on the pedestals above the smaller tribunes of the cathedral. Zocchi, in his illustrations of Florence, shows them already placed. It is not known where they are now, but certainly the pedestals are vacant. One of the statues was to have been made of the marble which Michael Angelo used afterwards for the David, but that one was, of course, never finished.

This is almost the last work of sculpture with which Brunelleschi's name is connected. The only later one dates May 13, 1427, when we find him employed on another work of sculpture; but, as usual, he is only the designer, and Giusto di Francesco da Settignano is the stone-worker who executed it. Fabriczy (p. 23 note) quotes a quaint entry from the book of "Ricordi" of Fra Giuliano di Nofri Benini, Prior of the Church of

* Guasti, "S. Maria del Fiore," p. 316, An. 1415, Gennaio 29: "Deliberaverunt quod precipiatur Pippo ser Brunelleschi pro eorum parte, quod hinc ad per totam diem quintam mensis februarii proxime futuri det et tradat Donato Betti Bardi plumbum pro proficiendo figuram in forma eis locatam; alias elapso termino capiatur ad petitionem dictorum operariorum et sine ipsorum deliberatione non relapsetur" (Delib. LXIX. 34). Although the year is given as 1415, this is the January following the October of the commission. By the old Florentine computation the year began in March—a fact which accounts for a great deal of uncertainty in the chronology of Vasari and other early writers.

S. Jacopo in Campo Corbolino: "This 20th day of November, 1426, I bought from the Opera of Santa Liberata (the Duomo) a slab of white marble weighing 700 lb., for 24 soldi the hundred. In all it amounted to 8 lire 12 soldi 10 denari, and that I paid to the *camarlingo*. I bought the said slab on the advice of Filippo di Ser Brunellesco to make a tabernacle for the conservation of the Host in the Church of San Jacopo in the pilaster of the high altar, towards the altar of S. Bernardo." He further says that he took this to the works of San Lorenzo, where Brunelleschi was then employed, and placed it under cover; and that on Tuesday, May 13, Filippo *cominciò a fare lavorare* on this marble, and that the Opera had chosen Giusto di Francesco da Settignano to sculpture it.

CHAPTER VI

FIRST THOUGHTS OF THE GREAT DOME

On studying the three great Italian biographers of Brunelleschi, I have come to the conclusion that Manetti is most to be trusted. Vasari drew his facts from him and embellished them in his own gossiping way, allowing his judgment to be influenced by his virus against the *maestri* who were the exponents of pre-Renaissance architecture, and his over-veneration of Brunelleschi as the founder of the classic revival. Consequently his reports of the meetings of *maestri* and *operai* are to be taken with caution. Baldinucci is more trustworthy,

for he repeats Manetti, leaving out Vasari's spite, and giving some valuable confirmation in his notes. Manetti's assertions are in almost every instance borne out by the archives of the Opera, lately collected and classed by Guasti, so I shall choose these two as the authorities on the part of Filippo's life which was connected with his masterpiece, the dome of Florence Cathedral—a period of twenty years.

In 1417 Filippo made one of his periodical visits to Florence from Rome, and spent much of his time with the masters of the Opera. The fame of his architectural studies in Rome, and the designs, etc., which he had to show for them, had raised him in the estimation of the Florentine artists as a first-rate authority on architecture, and the grand church being now completed as far as the tribune, the great problem of how to cover this huge space with a cupola was looming large before the architects. They all knew how to build a dome in the way the Lombard-Gothic artists had done before them; but these were smaller affairs, for which they had been able to use the usual wooden scaffolding and *centine*, or curved planks of wood such as are used in making the arches of a bridge, and on which the dome was supported till the keystone was put in. Such a dome as this, which had to bridge over a diameter of 200 feet, had never in the annals of architecture been attempted, and the masters were aghast at the difficulties before them.

We should here explain who these *maestri* were. They were the members of the Arte dei Maestri di Pietra e Legname, who held sway in the Opera del Duomo. They entirely managed all the active part of

the building going on in the city, under the patronage of the Arte della Lana, which with their officers, the *operai*, undertook the pecuniary administration, and as colleagues attended the general meetings.* It was this arbitrary and powerful organization which Brunelleschi especially disliked. There was not enough individuality about it for him. He believed in a man having the credit of his own works, and did not choose that his original designs should be obscured under the collective name of a company, as so much of the beautiful work in Florence had been. Moreover, he hated having every design discussed and altered by a dozen different opinions at a masonic meeting.

However, the *laborerium* of the Opera was in itself such a congenial lounging-place that he frequented it greatly. There was always some interesting architectural or sculptural work going on, and new models to see, and he had already gained such credit for his scientific knowledge that the masters often consulted him, as they did now about the dome. Now, Filippo had very clear ideas on one point—*i.e.*, that he intended to build that cupola himself, and to get the honour of it, too.

At this time, however, either his plans were not matured, or he wanted to alarm the architects still

* That the masters held private meetings which the *operai* and consuls of wool did not attend is very evident, from the fact that Brunelleschi was condemned to imprisonment for not paying his matriculation fees, in a private séance of the masters, of which the *operai* knew nothing. Several documents given by Gaye go to prove the filial relation of this civic guild to the Lombard one—for instance, a decree that any Lombard or qualified masters from other parts who came to live in Florence should be allowed to work there without paying any fees or taxes to the city guild.

more, so that they should in the end resign the task; in either case he delighted in capping all their difficulties by finding greater ones. When they said the question was difficult, he agreed that it was almost impossible. Among other things, he said it would be necessary to change Arnolfo's plan, in which the cupola rose from the level of the nave, and to raise the octagon tribune 28 feet above the nave, putting in an *occhio* (eye or circular window) in each face. But this the masters thought would weaken the supports still further, and the weight would certainly be too much for the tribune.

Filippo, waiving further discussion, said that, his affairs being now in order, he must return to Rome. But this "they would not allow him to do, and consulted him morning and evening every day, and at length when he ultimately departed they forced him to take a handful of gold florins." This, says Manetti, may be found in the writings of the Opera among the expenses of May 26, 1417. Here it certainly is, but the real date is as follows: "An. 1417, a 19 maggio, Filippo di Ser Brunellesco, Aurifici, pro eius mercede et compensatione laboris per eum impensi in edificatione maioris Cupole, et pro bono gratuitate dicti laboris, flor, decem, auri.* This entry has been taken by some writers as a proof that he had submitted a plan to them at this date, but I believe this was not the case. Manetti speaks of it as an honorarium to him as an expert, while Vasari looks on it as a bribe to keep him in Florence. Possibly it was partly to pay for the plans of the elevation of the tribune which were carried

* Guasti, "La Cupola," etc., p. 17, doc. 16.

out, and so prepared the way for Brunelleschi's own share of future glory.

But the Duomo was drawing him to his high destiny; after this he seems not to have been able to keep away from it, and by this time his plans were well thought out. He came back from Rome again in 1418; the tribune was nearly finished, and he was again called into councils at the Opera. Again he enlarged on the immense difficulties to be surmounted, and advised the *operai*, both for their own honour and to avoid spending money uselessly, to call a *collegio* on a certain day, which all the master-architects, builders and master-engineers who were to be found in the realms of Christendom should be asked to attend, that they might discuss this crucial question in the presence of the most worthy citizens, of whom Florence now boasted more than at any past time. "It may be," added Filippo, "that God will bring some good out of it." Whether this suggestion were made in good faith, or whether Brunelleschi was quietly ridiculing the ponderous methods of the *maestranze*, as he called the Arte dei Maestri di Pietra e Legname, I cannot say.

The council was certainly convened, but there is much confusion among the different writers as to its date and its discussion. Vasari puts it in 1420, and gives a great many absurd stories of the foolish propositions of the masters. This date is decidedly wrong. The books of the Opera chronicle a general council held in March of that year to examine various models, and among others that of Brunelleschi. This certainly cannot be the meeting at which absurd proposals were made; for that must have been when first considering the ques-

tion, before any models were submitted. Besides, by April, 1419, Brunelleschi's model was already accepted. Manetti also mixed up the two meetings—one in 1417 and one in 1419. The stormy one, when Filippo and the masters did not agree, and when he was bodily carried out of the room, was evidently the former, when he first broached his seemingly impossible plan of building the dome without *armadure* or *centine* (scaffolding and centering). Here is Manetti's account of the meeting. He says that Filippo came from Rome for it, and much consultation was held about scaffolding, girders, woodwork, iron and stone, gargoyles, and even ornamentation. Also whether the scaffolding should be pendent or built from the ground. After all this came the question of turning the dome. And again Filippo insisted on the possibility of building it without temporary supports, and undertook to do it; only he said the cupola must be double, so that the two walls being bound together should support each other.

Still the masters ridiculed the project. "If the dome has to be double," they asked, "how is the great weight to be supported over such a space, when even the model of the great master Arnolfo, which was in the Opera, had fallen in?" One proposed to build a tower in the centre of the tribune to support the bridges and *centine* for the dome.

Another thought it might be advisable to fill up the space with earth, and so make a solid mass to build upon.

"Yes," said a humorous member, "and mix in some soldi (pence) with the earth, that the populace may be induced to take it away again."

shillings

Brunelleschi asserted again and again that no such ponderous aids to architecture were necessary, that he would show them that the whole dome could be built without centering, and not fall at the end of it, either.

A shout of derision greeted this; but Filippo manfully stuck to his assertion, and argued so forcibly that they said he was obstructing the meeting, and he was carried out by force. For days after he was jeered at when he went into the streets, and people cried: "There goes that crack-brained fellow who says such preposterous things." Nevertheless his faith in himself inspired in others a belief in him, and the idea of building a dome without scaffoldings began to appear possible to some people.

The *operai* were divided into two sects—the pro-Filippo and pro-Magistri. One of the former, Schiatta Ridolfi, wishing to build a family chapel in the Church of S. Jacopo in Borgo sopra l' Arno, employed Brunelleschi as his architect. The chapel was to have a cupola, and thus the architect had a chance to show on a small scale how to build one without centering.* It being a small dome, Filippo built it in the style still known in Italy as *a cresta*. Manetti and Baldinucci, who merely copied him verbally, describe the method as follows: "It was the first which was built in Florence in that form, which is still called *a cresta* or *a vela*, and it is done with a cane or pole attached horizontally to the centre of the base of the cupola (presumably by a pivot on the central plank of the bridge); this turns round little by little, its point touching every brick or half-

* This work is now lost, having disappeared in the restoration of the church in 1709. Brunelleschi afterwards built another for the Barbadori family, in the Church of Sta. Felicità, with a similar dome.

brick which the mason lays, and the pole is thus gradually raised until, when the cupola is closed, it terminates in a perfectly perpendicular position."

This simple and ingenious expedient insures a gradual and even closing in of space, and a perfectly safe gradus of curve; but, after all, though it proves that a small circular dome may be made without centering, it does not quite explain the method to be used in the great octagonal cupola of the cathedral, and so thought many of the *operai* and consuls.

"This is all very well," they said; "but it is a very small cupola and comparatively easy. How are you going to build the immense one without scaffolding or centering?"

He always firmly asserted that he could do it, and at the next meeting the governors of the Opera begged him either to show the plans and models he had made or to explain more minutely his supposed method. But this Filippo was not at all inclined to do. He was quite aware of the mixture of jealousy and distrust of him as an outsider who claimed to rival the *maestri* on their own ground; and, not wishing to share the credit of his invention with a crowd of other architects, he was determined not to divulge his secrets until the whole power of execution was put into his hands. This the masters of the Building Guild declined to do without having fully inspected his plans and designs in one of their usual meetings. They said they did not believe in supernatural powers without proof, and that a mere outsider could not have more knowledge than the masters of the Opera, who were all trained architects, and inheritors of the knowledge of ages.

Then Filippo is said to have made his famous challenge (afterwards used by Columbus) of defying the masters with all their science to stand an egg upright on its smaller end. They all tried and failed. Filippo just flattened the end with a slight blow and stood it upright.

"Oh, we could have done that!" cried the architects of the Opera.

"And so you would say if you knew my plan of building a dome without centering. Let me build it, and you will see how it is done."

The consuls of the Wool Company and the masters of the Opera were still obstinate, but, with a growing belief in the power of the dogged little genius, they determined to get his plans from him somehow.

Consequently, on August 19, 1418, they put forth a proclamation that all architects, artists, or others who had made any plans or designs for the completion of the cupola should submit them to the Opera before the end of September. A prize of 200 gold florins was offered for the best design, and all the other competitors, whether their designs were accepted or not, would be refunded the expenses incurred in preparing their models. The masters, however, were backward, and on October 4 another proclamation was made (for which the public herald, Francesco di Paolo, was paid 20 soldi on one day, and 1 lira for the next, which was the same sum), prolonging the time to October 22.

Another prorogation to the end of December was then published. Several masters of the Opera sent in models either in wood or architectural designs on parchment, and there is a record of various sums of money paid for designs.

The first to really set to work was Brunelleschi, who gave notice of his intention as early as August 31, 1418, when the *operai* elected four masters to superintend and assist him in the work, which was a brick model begun on September 1.

We must now consider the question whether this model in masonry was the famous one in which Brunelleschi was associated with Donatello and Nanni di Banco. I think it was, for the following reasons: Firstly, it is not likely that two large models in masonry would have been made by Brunelleschi in the same year, especially one on so large a scale that the Opera had to set four of its own masters to superintend the erection of it. Secondly, it would be quite in accordance with Filippo's character to wish that his erection should not be entirely in the hands of the hated *maestranze*, and that he should choose Donatello, his most intimate friend and his favourite pupil, to guard his interests. This seems proved by the entry in queer old low Latin in the books of the Opera, that Christoforo Simonis, Tuccio Johannis, Jacopo Johannis Roso, and Gherardo Belacqua, were paid 4 lire each between December 20 and 23, for their services as experts in inspecting the model of Filippo Brunelleschi and partners (Filippi Ser Brunellesco *et sociorum*), and to decide whether it would be possible to build the great dome on that plan. Here the names of Donatello and Nanni di Banco his associates are not precisely mentioned; but in an entry dated December 29, 1419, we find that Filippo, Donatello, and Nanni were paid 45 gold florins for their work during the building of the brick and mortar model, made some time since, without any scaffolding, as an

example for the great cupola. Thus we get documental proof that the three friends were associated in making a large brick model, and as only one design in masonry is mentioned, this was presumably the one (Guasti, "La Cupola," etc., p. 25, doc. 43. See doc. 1).

This trial edifice remained on the Piazza of the Duomo near the Campanile till January 23, 1430-1, when the consuls of the Opera, finding the real cupola so far advanced that it was of no further use, and also that complaints were made of its being so misused as to become a public nuisance, instructed the *caput magister* of the Opera to order its removal, "taking care, however, that the framework shall be preserved entire, and placed in a safe and more convenient place" (Guasti, p. 35, doc. 68).*

Brunelleschi was still receiving payments for this model up to 1420. On July 11, 1419, he was paid 50 lire 15 soldi for expenses and work on the lantern and gallery of the model cupola, which had on the top a gilded banner with a lily (Guasti, "La Cupola," etc., 19, doc. 20). On April 1, 1420, he was paid 2 lire 8 denari for wire and cord to measure the model, and on April 24, 10 florins for his time and labour during the making of it by four masters of the city, and for having attended councils and given advice about this model "from November 20, 1419, to this day" (*i.e.*, April 24).

Guasti gives a long list of expenses paid during all this time to different masters and tradesmen who were

* In another book the decision is thus chronicled: "An. 1431, a 4 Febbraio. Deliberaverunt quod caput magister Opere destrui faciat, expensis Opere, modellum factum per Filippum ser Brunelleschi magne Cupole" (Libro di Deliberazioni, I. a.c., 153 t.).

connected with the model, ending on April 26, 1420, with 46 soldi 8 denari paid for three flasks of white wine and two of vermiglio, with bread, pomegranates and beans, for the collation of the masters who went to inspect it on the morning of that day.

From various entries in the books of the Opera we gather that a breakfast to the masters was a usual ceremony on the commencement and completion of a work. The important model being finished, and all the others ready, a great meeting was called at the Opera to consider them. Vasari puts this at the end of March, 1420. But the books of the Opera show that the public herald announced to the Florentine citizens on April 3, 1420, that anyone who had anything to say regarding the models should attend, etc. (Guasti, p. 26, doc. 45).

The attendance included all the Florentine masters who had sent in models, but there is no special mention of the Ultramontane ones, whom Vasari declares attended in great numbers, except, of course, the Lombard headmaster Giovanni d' Ambrogio and several other North Italian masters then working with the Florentines.

The affair was so emphatically a civic one that the Florentine guild, being a very large one, could quite well settle it unaided. In the first place, before the Opera could seriously consider his model, Filippo was obliged to lay a description and technical explanation of it before the meeting. This he did at length, and the original of the report, which I here give in English, was copied into the books of the Opera in 1420.*

* Vasari has considerably embroidered this concise and explicit explanation, but I have preferred to take the language of the copy

"INSTRUCTIONS GIVEN IN 1420 BY BRUNELLESCHI FOR THE CONSTRUCTION OF THE CUPOLA, ACCORDING TO HIS MODEL, WITH THE AMENDMENT MADE IN 1421.

"We will here mention every part which is contained in the model, made as a sample of the great cupola, which cupola must be built in this form and manner.

"Firstly, the angles of the wall of the inner cupola shall at the base be 6 feet 10 inches thick. They are built pyramidically, so that at the top, where the orifice for the lantern is, they are only 4 feet 7 inches thick.

"We shall make a second cupola outside this to preserve it from damp, and also to increase its size and magnificence. The masonry of this at the base will be 2 feet 3½ inches thick, following it up pyramidically; the thickness will at the summit be 1 foot 2 inches.

"The space which remains between one cupola and the other shall be 3 feet 8 inches. In this space stairs will be placed so that one may pass freely anywhere between the two domes. At the top this space will be 4 feet 3 inches wide.

"There are also (between the domes) twenty-four *sproni*,* of which eight are in the angles, and sixteen in the sides (two in each). Each buttress shall at the

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which the anonymous contemporary gives from the books of the Opera (Moreni, "Due Vite de Brunelleschi," pp. 321-323; see also Guasti, "La Cupola," etc., pp. 28-30, doc. 51).

* *Sproni* are either brackets or buttresses, or any transverse masonry for the purpose of strengthening a wall or foundation. In this case they are solid buttresses, built between the walls of the two cupolas to strengthen them, and counteract the pressure from above as the work goes on.

angles be 12 feet 10 inches wide. On the inside between the angles there will be two buttresses in each division, each one 7 feet 4 inches wide at the foot, and running the whole height of the dome, being pyramidically built, with it, in equal proportions to the summit.

"These twenty-four buttresses, with the said cupola, are bound around by six circles of strong *macigno* (a kind of limestone found near Florence), well riveted together with iron; and above these stone girders are other girders of iron, which hold together the cupola and the buttresses. There must be solid masonry at the base to the height of 9 feet 7½ inches, after which the buttresses will follow, dividing the two domes.

"The first and second circles are 8 feet 8 inches high, the third and fourth 2 feet 5⅓ inches, and the fifth and sixth 1 foot 10 inches; but the first circle at the base shall be besides this strengthened with long transverse blocks of stone, so that both the inner and outer domes rest on these blocks.

"At the height of 22 feet or thereabouts of the said domes there will be small round arches forming a passage between one buttress and another, and under the arches, between one buttress and the next, will be girders of solid oak which steady the buttresses and bind the dome; above these oaken girders must be a circle of strong iron ones.

"The buttresses must be all built of strong *macigno*, or limestone, and the eight sides of the cupola of solid stone, strengthened with buttresses to the height of 44 feet, and from here upwards they may be of bricks, or of *spugna* (a light spongy stone like pumice-stone), whichever the builders choose, as being lighter than stone.

"There will be an outer gallery above the windows (of the drum), which will rest on brackets, and have a perforated parapet about 3 feet 8 inches high to embellish the tribune beneath, or there might be two galleries, one above the other, over an ornate cornice, the upper gallery being open.

"The water from the cupola will be drained off in a channel of marble 7 inches wide, and carried away in pipes in the wall beneath it.

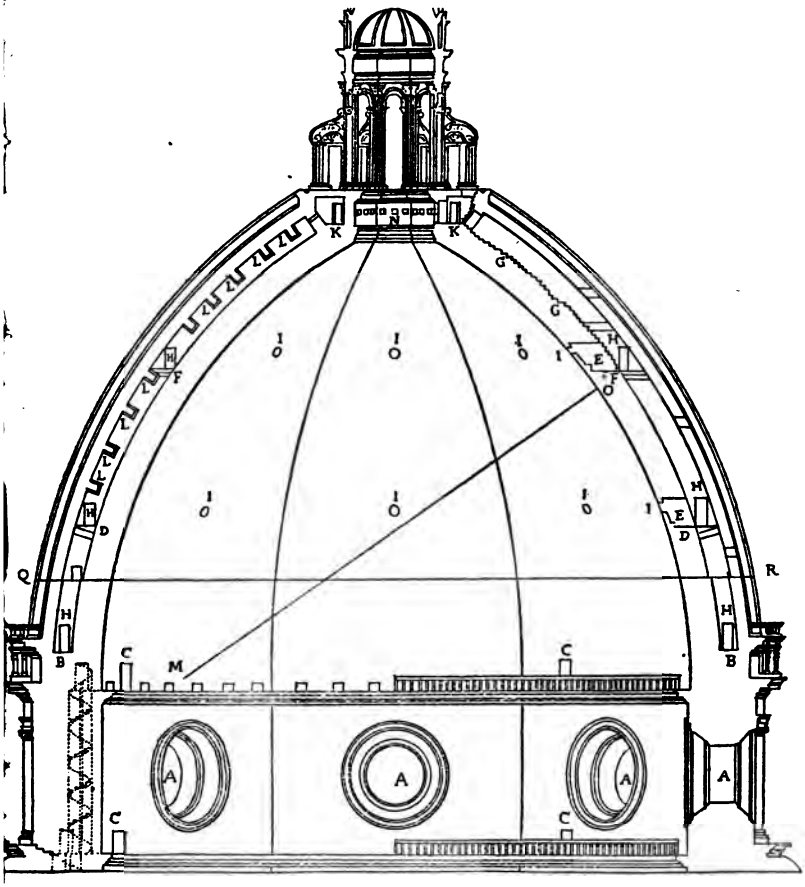
"Eight marble ribs will be constructed at the angles of the outer cupola. The blocks of marble shall project 1 foot 10 inches above the tiles in the form of a cornice, and shall be 3 feet 8 inches wide. These ribs are carried in pyramidal form from the base to the summit.

"In this way the cupola may be built without any scaffolding, especially up to the height of 55 feet; but from that point upwards the masters who build it will decide on the best way, because in building 'practice is the best teacher.'"

An amendment was made on March 13, 1421 (the year after), that the sixteen buttresses on the sides should be 5 feet 6 inches wide at the base instead of 7 feet 4 inches, so as to lessen the weight of the fabric, and that the cupola, instead of being built of heavy stone to the height of 44 feet, shall be so built up to about 25 feet, and after that of bricks.*

By this explanation, together with the brick model which was now open to inspection, Filippo at length succeeded in impressing the consuls and masters with

* "Archives of S. Maria del Fiore" (Bastardello di Deliberazioni LXXXI. a.c. 17 t.).



ECTION OF THE CUPOLA.—A. The round windows of the drum. B. The part where the solid walls divide into the inner and outer cupola, leaving a passage between them. C. The doors opening to the different staircases. D. The ending of the first stage of staircase, and entrance to second corridor. F. The third corridor and staircase. H. The door of this passage. E. Apertures leading to the openings marked I, which were left for the scaffolding for the mosaic. (The mosaic was never placed. Frescoes took its place later.) G. Stair to the lantern N. K. Door of internal gallery. L. The arches that sustain the outer cupola. Q R. The plane where the oaken chain of girders is placed.

a sense of his power. Certainly none of the other models were at all equal to it, and, moreover, they all required a deal of scaffolding, and the indispensable centering of wood—an enormous difficulty and expense in itself. But there remained the fact that he was a goldsmith, and not qualified in the Arte dei Maestri di Pietra e Legname, and to give the crowning glory of the great church which that guild had exclusively built went against the masters' principles.

The Florentine world outside the lodge was also divided into two factions.

One party believed in Filippo, who lost no opportunity, either in meetings or social gatherings, of declaring that he and no other man could succeed in putting the dome to the great church; and that if that pig-headed *maestranza* only had the sense to trust him, they would find failure was impossible to him, so certain was he of his plans.

Another party was full of admiration for Lorenzo Ghiberti, whose first doors of the baptistery were nearing completion and attracting general approbation. They held that he, having defeated Brunelleschi in sculpture, must needs be a better artist; moreover, his model for the Duomo was by these partisans judged a very fine one, and, indeed, stood next to Filippo's in rank. Lorenzo's partisans made a secret crusade against Brunelleschi, and tried in every possible way to get the commission for Lorenzo.*

Arguments fierce and frequent took place in every part of the city. Artists quarrelled in the studios, rich

* Lorenzo Ghiberti had been worldly wise enough to conciliate the masonic masters by matriculating in their guild.

citizens discussed the question in the *loggie* and salons, the consuls of wool made speeches at meetings, and the masters protested in the Opera. At length the *operai* decided that something must be done, but, as no unanimous vote for Brunelleschi as sole architect could be obtained at any meeting, they resorted to a compromise, and tried to please all three parties, besides insuring themselves against risk of failure. To avoid the latter, they gave Brunelleschi a temporary commission to begin the work up to 14 braccia only (27 feet). It would then be inspected by a council of *operai* and *maestri*, and, if found satisfactory, full powers of completion would be given him. Hedging between the parties, these wily *operai*, moreover, said that it would not do to put the whole of such a great work into the hands of one untried artist; therefore they would associate with him Lorenzo Ghiberti as *provvisores* at 3 florins a month each, and both would be under the *capo maestro* of the Opera.

This was Battista Antonio, who had been elected in 1418, when Giovanni d' Ambrogio resigned from old age. Being *capo maestro* of the whole Opera, he of course retained his office during the building of the dome. So the *esprit de corps* of the masters was salved, one of themselves was still nominal head, and Ghiberti's friends were also satisfied. Not so, however, Brunelleschi, who was furious, and half inclined to throw up the whole thing. Was there ever such an absurd commission given to a man as to build a mere rim of a cupola 27 feet high, and then leave it to chance whether it ever got finished or not? The very offer was an insult to an architect who had any respect for himself. But the worst sting

was the foisting of Ghiberti on him. He had sixteen years ago given way, and left Ghiberti to enjoy his own laurels in the field of sculpture, determining to have no rival in that of architecture, to which he had given so many years of deep and earnest study in Rome. To be obliged, then, either to share his well-earned laurels with his old rival, or to have them ruined by his ignorance, was too much mortification.

Filippo protested, he swore, he demonstrated that he, and he alone, had made the plans, and that he only could carry them out. That if his model were the one accepted, as it was in fact, the model of Ghiberti, however good, could be of no use, and that therefore he was not required.

It was all in vain. No one would trust one man alone when for ages the guild had been accustomed to a plurality of masters taking counsel and working in concert, and poor Filippo must either resign the great aim of his life, or begin it under what he felt to be great indignities. Resign he would not; his heart and his ambition were both too much involved. He was determined not only to build the cupola, but to have the credit for it. So, trusting to future opportunity to get rid of Ghiberti, he decided to put up with the drawbacks and win his way to glory in spite of them.

Ghiberti himself had no scruple in accepting the position. Cicognara (vol. ii., cap. iv., p. 82), quoting from Ghiberti's codex in the Magliabecchian Library, gives his own words, saying that in the building of the tribune he and Filippo were fellow-workers for eighteen years at the same salary, till they had finished the tribune.

It would seem, however, that the consuls of the Opera so far gave in to him as to cancel that humiliating plan of only trusting him to begin to a certain height, for the document (No. 71 in Guasti, "La Cupola," pp. 35, 36) which chronicles the election of the three as *provvisores*, specifies distinctly that they shall "construct, provide, and order, or cause to construct," the said cupola to its perfecting and completion (*ad ipsius cupola perfectionem et complementum*).

They were each to have a salary of three gold florins a month, which was to be paid at the pleasure of the Opera, and if the work satisfied them. Battista d' Antonio was at present drawing 2 gold florins a month as his usual honorarium as *capo magistro*. This 2 florins would be withdrawn when the higher pay as one of the *provvisores* began. But, then, he had other privileges. He was to be paid the usual 20 soldi a day due to any master of the guild whenever he chose to give his manual labour to the building. We can see from this that Battista was favoured, and the reason was not far to seek. He was the head of the lodge, and the others, or at least one of them, were outsiders.

He appears to have been a reasonable man, and did not intrude his official power on Brunelleschi. I find no case of friction between them. Filippo bowed to necessity in accepting him as nominally representing the guild, which hitherto had monopolized all architectural works; and he, according to tradition, left any one of his colleagues who had a commission to carry it out unhindered, unless a meeting were considered necessary to discuss his methods of executing it. No! it was not the *capo maestro* that troubled Brunelleschi: it was

that other goldsmith who, not content with being the finest sculptor in Florence, must needs be bracketed with one who knew himself to be the finest architect. The document of election further stipulates that if either of these three *provvisores* resigned, or should be dismissed, Giuliano Arrighi (the painter Pesello) or Johannes Gherardi of Prato should be elected in his place.

Besides this, eight master builders—Riccio di Giovanni, Tuccio Giovanni of Siena, Giovanni di Filippo, Niccolo di Benozzi, Berti di Bartolommeo, Geri di Antonio Ciofi, Blasius, and Gherardo—were told off for the building. All these were to receive the usual salary of 20 soldi or a lira a day, and were bound to be under the orders of the *provvisores*. On May 20 preparations for the work began, and on October 22 both Filippo and Ghiberti were paid 13 gold florins for four months and ten days (from May 20 to September 30) at 3 florins a month.*

All the biographers exclaim at the meanness of the remuneration. Manetti blames Lorenzo's friends for splitting up a salary which ought to have been all Filippo's, and giving half to a man who was practically superfluous.

All this busy summer, and the next three or four years, the progress of the dome may be traced by the entries in the books of the Opera. On April 30, 1420, immediately after the election of the three *provvisores*, we find the administration of the Opera gave an order to prepare 120 braccia of stone, cut brick-shape, 200 planks of olive-wood, 100 fir-trunks for

* See documents 72 and 73, p. 37, in Guasti's "La Cupola," etc.

making platforms, 8 planks of pine-wood, while five modia* of lime and 60 blocks of *macigno* (hard stone), 2 braccia square, were to be supplied every day except when it rained. It was further ordered that a wheel should be erected to drag them up to the *laborerium*. Cut stone and marble were, as time went on, brought in such quantities that the Piazza of the Duomo was full of them, and the citizens said they "thought Pippo was going to b iild a city up there, and that Maestro Arnolfo's church would be crushed under it."

CHAPTER VII

THE DOME RISES

WITH all these preparations, the absolute building does not appear to have been begun till August 7, when 3 lire 9 soldi were spent on a barrel of vermiglio and a flask of trebbiano wine, bread, and melons for the collation of the masters on the morning when they began the masonry of the cupola (Guasti, *op. cit.*, p. 85, doc. 239).

These precious books of the Opera reveal where and how the marble and stones were obtained, and how they were all carried up to the top of the dome. The Opera had taken a lease of the quarry of Trassinaia on the hill of Vincigliata, and Antonio di Berto and Francesco d' Andrea were employed to bring the blocks of *macigno* to the Opera, 100 lire being lent them for pre-

* The Roman modius was a measure containing about two gallons.

liminary expenses. We find, moreover, that 223 *scarpelli* (chisels) were sharpened on June 28 to cut the blocks.

On April 18, 1421, the council deliberated that the *macigno* from that quarry, being good for the purpose, should be used exclusively for the cupola, and not for any other building. On January 30, 1424, a Carrara carman, named Leonardo di Berto, had a commission to bring twenty-five cartloads, of 2,000 pounds each, of white marble from Avenza to Pisa, whence it was to be brought to Florence by river; the whole to be delivered before March, 1425. Leonardo was to be prepaid 12 florins on account, that he might hire the requisite number of workmen. This was probably the material for the ribs, which were made of blocks of white marble shaped to form a rich raised moulding 60 inches wide.

This was not enough, however, for on June 22, 1433, Filippo Brunelleschi and Battista and Bartolommeo Ciai (*provveditores*) had the faculty to order 100 *migliaia* (literally, thousands) of marble from Checco di Marchisse, 250 *migliaia* from Francesco d' Andrea and Francesco di Meo, and 250 from Bertino di Piero of Vernagallo and his sons. All of which was to be in the manner and form given them by Filippo and Battista, *capo maestro*, and must be delivered by the end of October, 1433; 7 lire 10 soldi a *migliaia* was to be paid for carriage if it came by water, and 2 lire 6 soldi more if, not being able to bring it by water, it had to come overland. On August 12 the *caput magister*, Battista d' Antonio, was permitted to order sixty cut blocks of *macigno*, and on March 16, 1427, some masters and men were sent to the quarries to cut the stones required for

the *anulos lapidum—i.e.*, the circle of stone girders for the cupola.

All these heavy stones had to be raised to the top of the dome by means of lifts and cranes. The first mention is that of the wheel spoken of on p. 59. This wheel seems to have been replaced in 1421 by a new invention of Brunelleschi's—a machine lift, which proved of such superior utility and convenience that the Opera on July 18 gave him 100 florins for his ingenuity.* On August 20, 1421, he received in addition 11 florins and 584 lire for the expenses he had incurred in constructing this lift. A long detailed list of these costs is given in Guasti (doc. 125). They include wheels, pulleys, beams, balances, rope, leather, yokes for the oxen that worked it, fourteen pails of glue, boxes, chains, etc. In 1423 he again improved on this by a *castello* to draw up weights, for which invention he was paid 10 gold florins on April 15, 1423.

These machine cranes form a prominent subject in the "Book of Deliberations" and the book of payments of the Opera between 1420 and 1430. Various masters invented models of machines for drawing materials up to the workmen in the dome; but the first one adopted was certainly the one just mentioned, invented by Filippo himself.

On October 6, 1422, a blacksmith was paid 252 lire for chains and ironwork necessary for the machine, while wood and new rope seem to have been in frequent requisition. Then, on March 27, 1425, we find expenses for a new lift invented by Filippo di Ser Brunellesco and Batista d' Antonio, *caput magister*. Both Donatello

* Guasti, doc. 122-124.

and Ghiberti were employed on this improved lift. On October 12, 1425, Donatello was paid 4 lire 4 soldi for a *mozetto* (*sic*)—(probably *morzetto*, or screw-vice), 29 pounds in weight, for the lift, for which he had used 1 pound 3 ounces of his own bronze; and on the same day Ghiberti was paid 34 lire 18 soldi 4 denari for 5 *mozetti* of bronze, which weighed 280 pounds. Of this, 120 pounds of bronze metal belonged to the Opera; the rest he furnished at his own expense. By this we see that Ghiberti was paid by the piece for any work he did in addition to his salary as *provvisore*. In 1427, on December 9, the Opera "deliberated" that the *capo maestro* might sell the large wheel and beam for the price which he shall judge fair. This was probably Brunelleschi's first lift. For the new one, expenses continue to be noted up to 1433, when Antonio Manetti was paid 12 lire for two screws for it.

The office of *tiratore* (drawer up of weights) was a recognised business. The first *tiratore*, Bartolino di Bartolommeo Cagnani, was paid 31 soldi a day, when he worked with one ox, and 50 when two were employed. On November 29 we find that Pieri di Nanni, of Marignolle (a village near Florence) undertook to convey to the upper wall of the cupola any kind of stone, etc., bricks, lime, sand, water, iron, or wood, etc., either by horse or ox power, using the lift designed by Filippo Brunelleschi. He was engaged for a year, beginning on December 1, and was paid 10 denari in winter, and 6 in summer for every load.

In March, 1422, a new contract was made with a certain Francesco, nicknamed Baccellone, who was to be paid according to the *subbio* (beam ?) he used. *Subbio*

is the large beam of the weaving loom; it might be used here as the pole of the lever. For using the great *subbio* he got 7 denari a load, for the middle-sized one 10½, for the small one 14. In 1425 a certain Nanni di Goro having worked at the lift for a year with his oxen and sent up a great number of weights, the *operai* decided to raise his salary to 42 soldi a day.

On September 5, 1426, Filippo Brunelleschi was paid 6 lire as compensation. He had, it seems, bought a pony for the lift, and then, having resold it, he lost a florin by it.*

In 1421, when the marbles were being brought at great expense from Pisa, Brunelleschi invented a kind of boat or raft which he called the *badalone*. It was furnished with machines, probably cranes, so that heavy weights might be brought to Florence at much less labour and expense than before. According to his usual principle, he was determined that he himself, and no other, should reap the fruits of his ingenuity, and he obtained from the Signoria a *privilegio*, which is, I believe, the prototype of the modern patent. This document, which is preserved in the registers of the republic, is given entire in Gaye's "Carteggio," vol. i., pp. 547, 548. It is dated June 19, 1421, and begins, "Audito magnifici et potentes domini, domini priores et vexillifer justitie, qualiter vir perspicacissimi intellectus et industriæ et inventionis admirabilis Filippus Ser Brunelleschi," etc., and stipulates that for three years to come no one shall, either in the Arno or any other river, lake, or water whatsoever, use this boat or make any other similar one, without the consent of Filippo Brunelleschi,

* All these entries are in Guasti, pp. 62-67.

who during this time is to receive the whole profit of his invention.*

On November 6, 1422, the masters drank a barrel of wine to celebrate the day when they commenced to build with the *quadronibus* (bricks). Brunelleschi caused the bricks for this part to be made especially to measure. Some of them were of a peculiar shape for dovetailing one into another to make the masonry more solid at the angles. The mould is still preserved in the museum of the Opera.

The work went on till July, 1423, when the circle had reached the height of 44 feet, and the question of the chain of girders (*la catena*) had to be considered. On July 5† Filippo was paid 8 lire for a model in wood of these girders, which were immense wooden beams run through the buttresses and the arches between them. The beams were bound with iron at the juncture where the slight curve was needful. The iron work for the wooden girders was all ordered from certain iron masters of Pistoja—a city which from the earliest times had been famous for metal work.

The *capo maestro* Battista does not seem to have at all interfered with Brunelleschi's plans, but did not mind assisting in other ways. Thus, on November 21, 1421, he hired a pony, and with a companion rode to Pistoja to find and purchase the wood for the *catena*. This little journey cost the Opera 4 lire 3 soldi. Nuto di

* Milanesi, in his chronological table to Brunelleschi's life, dates the invention of the *badalone*, to bring marbles from Pisa to the Duomo of Florence, in December, 1432. Whether this be a mistake, or whether Brunelleschi improved on his earlier invention in that year, I cannot say.

† Guasti, *op. cit.*, p. 70, doc. 175.

Giovanni da Vergli, the man who brought the beams to Florence, was not paid for them till August 28, 1422, when he received 16 gold florins for the twenty-four beams, and another 12 florins on September 2, 1423.

Two other models had been made before this. Jacopo di Niccolò received 8 soldi, a much lower price, for his model on June 5, 1421.

We find that Brunelleschi was not able to work independently of the company of masters in any particular. They went on in their usual way, and had their meetings to judge the masonry, and festive collations at every step of his progress. On a Sunday in August they had a breakfast when they went to examine his model of the *catena*. This great girder was safely placed by August 27, 1423, when Filippo was paid 100 gold florins as honorarium for his services to the Opera, in "inventing and placing the girders on the large cupola," and also for other works, such as finding a means of lighting the cupola, and deciding how the next circle of stone girders was to be placed; also for designing the ribs of white marble. In this document (Guasti, *op. cit.*, p. 71, doc. 177) he is styled "Filippo Ser Brunelleschi inventore et ghubernatori maiori Cupola."

This *catena*, which took two years to place, was in Brunelleschi's eyes of the greatest importance, yet when the senator and architect, Giovanni Battista Nelli made his survey in 1753, he wrote a book to prove that the girders were needless, and had no effect on the safety of the dome. This may well be the case now that it is complete, and the closing in and superposed weight of the lantern keeps it solid, but during the course of building they might well have been useful

in counteracting the tendency of the walls to fall towards the centre, though, owing to the very gradual curve, this tendency was no doubt minimized.

On September 24, 1423, we again find money spent "per fare honore di vino a maestri" when they came to examine the designs of Messer Giovanni di Prato and Filippo di Ser Brunellesco. Another entry proves that these were designs for the smaller stone girders which, being placed transversely under the upper row of arches, bound the outer and inner domes together.

So the work went on for two years, the walls rising steadily and safely up to the point where the inward curve commenced. Here began the difficulties. The masters and workmen employed began to be terrified at the perilous work of building at such a giddy height without their accustomed solid supports of scaffolding and centering. The centering would at least have formed a screen on the interior, and have hidden that awful abyss of the tribune. They all agreed that, though Brunelleschi might raise the cupola without centering, he must and should put up some bridge-work which would give them a platform to repose their giddy heads at meal-times. Brunelleschi agreed to this, and in time the platform bridged the inner space, forming a certain *pied à terre* for the workmen.

Two great questions were pressing just then; the design for this scaffolding was one of them. The second crucial point was the method of building in the cross-girders of *macigno* (limestone), which formed the second *catena*. Filippo had made his plans for these transverse beams, and the masonry required to fix them; the

scaffolding was already designed by him, but he thought it a good opportunity to show the *operai* that his colleague Ghiberti was a useless expense to them, and of no practical use in the work.

We have seen by his practical joke on Grasso the carpenter how clever Filippo was at simulation, and now he decided to use that talent to expose Ghiberti, and to remain triumphant as sole architect of the cupola. He first sounded Ghiberti as to his idea of the girders; but Ghiberti, whose mind was filled with sculpture, had no ideas to propound, so he said that, as Filippo was the inventor of the work, he would leave the question to him. Filippo pretended that he had no ideas either, and the masters and their men up on the walls were waiting for orders, having very little to do till this question was settled. One day Filippo, who was always the first on the scene of labour, and kept his eye on every stone that was laid, was missing. A master-builder went to his house, and found him in bed with, as he said, a bad pain in his side, and the household were all busy about the invalid, one heating flannels, another making poultices at the fire.

Groaning, he referred his underlings to Ghiberti. But he was not of much use. If Filippo had made plans for the girders, Ghiberti had not seen them, and he had no designs of his own. He was, poor man! on the horns of a dilemma. If he went to Filippo for instructions, he acknowledged his own inability to direct the work which he was paid for directing. If by chance Filippo had made his designs, and Ghiberti's method was inferior to them, then he might have the mortification of being put to shame before the whole Opera and

maestranze. So he temporized, and said Brunelleschi would soon be well enough to give his orders himself. However, the pseudo-invalid grew worse every day. When the builders came for orders, they were told that Ghiberti would give them, but he gave none. When the *operai* begged him to give Ghiberti instructions, for he, Filippo, having the plans, Lorenzo could not do without him, he replied meaningly, "But I could do excellently well without Lorenzo."

Meanwhile the works were at a standstill till the Opera took the matter in hand and desired Lorenzo to immediately proceed with the girders. Lorenzo's partisans did not hesitate to say that Brunelleschi was only feigning illness because he was afraid of failure in carrying out a work for which he had no capacity. This soon brought him limping on the scene, walking as if in pain, and he had an interview with Ghiberti, in which he said that he, being ill, could not do everything himself, and that, as Ghiberti shared the pay, he should also share the work; so he gave him his choice of the two things—would he superintend the setting of the stone girders, or would he design and erect the scaffolding and platform? Lorenzo chose the girders, hoping that some old method used by the masters in former buildings would give him an idea. Brunelleschi soon had his massive maze of scaffold bridgework erected, and Ghiberti began his *catena.* The building went on for some time, till Filippo began to say that Lorenzo's girders were not worth the expense of 36 florins a year which the Opera paid Lorenzo, and that they were of no practical use in sustaining the inward-curving dome. At the next

meeting of the Opera he brought out his own plan and demonstrated to everyone's satisfaction how superior a strengthening force his method had.

The affair had the results he hoped for. On June 28, 1425, the Book of Deliberations of the Opera has this significant entry: "Deliberated that Lorenzo Bartolucci, goldsmith, cannot have or hold from the above Opera any salary for his work and office from the 1st of July forward, notwithstanding the election of the said Lorenzo, nor anything the consuls, *operai*, and four officials of the cupola may say to the contrary." (See document No. 2.)

This is the best confirmation we can have of his dismissal from the Opera at the very time when Brunelleschi proved his being superfluous. He was not got rid of, however, for on March 1, 1425-6, here is Ghiberti again receiving a salary. Brunelleschi as *inventore* and *provveditore*, however, had an increase up to 100 florins a year, while Ghiberti received only the former 3 florins a month for his sinecure. Even this appears not to have been paid in the years 1430 and 1431, and after June, 1436, it ceased entirely. This does not imply that, though not employed on the cupola, he was dismissed from the Opera. He was, as a matter of fact, engaged in a more congenial way. Between the dates of 1425 and 1427 he sculptured the tomb of Bartolommeo Valori in Santa Croce, and made two panels for the baptismal font at Siena. But he was also studying architecture more thoroughly, and with such good results that on December 20, 1427, he matriculated as *magister* in the Arte dei Maestri di Pietra. This gave him a firmer position than before,

he being now one of the *maestranze*, under whom Brunelleschi was so restive. In fact, during the next year, when the second circular chain of girders in stone had to be placed, his name is again associated with those of Brunelleschi and the *capo maestro* Battista d' Antonio as joint designers. In 1430, when his salary as *provveditore* again ceased, it was because the Opera were employing him as a sculptor for the tomb of S. Zenobi, now in the Duomo. After 1436 he was working at the doors of the Baptistery, and very glad to leave Brunelleschi to his building.

CHAPTER VIII

BRUNELLESCHI AS MASTER OF MEN

THE strong will and potent personality of Brunelleschi shine out all through the records of this building. He was always among his employées, inspected every stone that was laid, as well as the material and cements, and had everything in perfect order.

Rules were made that no workmen should descend from the cupola through the hours of labour. They carried up their provisions with them in the morning, and Brunelleschi and the master-masons may have been seen sitting on big stones, or afterwards on the wooden platform of the bridge, eating their bread and figs, and drinking their *trebbiano* wine. The use of wine was limited by rules. Seeing the danger to the masons in working at such a height, should their heads not be

clear, it was decreed that no wine should be sent up unless it were previously mixed with a third part of water. Anyone breaking this rule was fined 10 lire.

Another stringent rule which made a corollary to this, was that any master or labourer found drawing up food or anything whatsoever, which was not sanctioned by the Opera, should lose sixteen days' salary; and anyone who lent ropes for the purpose of drawing up such things should be fined 10 lire (Guasti, *op. cit.*, p. 80, doc. 219).

Two large slabs of plaster were hung upon the walls to mark the absence or attendance of the masters and their respective men, and on February 7, 1424, 18 soldi were paid to a certain Giovanni di Ser Benedetto for a sand hour-glass to mark the hours of labour (Guasti, *op. cit.*, p. 80, doc. 217, and p. 81, doc. 221).

Everything was overruled by the Opera, and the meetings held there must have been continuous, if one may judge by the numberless deliberations which Guasti reports from their books. They even deliberated on August 28, 1427, that the scribe of the Opera, Filippozius, should enter in the books the names of the masters who on fête-days went up to superintend the watering of the walls to keep the work moist. Also that if anyone, building at the summit, desired instead to work down below, his salary was to be lessened by one quarter. The extra quarter was evidently put on for the risk.

Special rules were made for wet weather. When it rained and the work at the summit could not be carried on, if there were not work enough to employ them all below in the *laborerium* of the Opera, the names of all

the masters were to be put into a bag, and five of them drawn every day. These fortunate five were to be employed at stone-cutting, brickwork, etc., in shelter, and receive their pay.

Another serious deliberation of the council was that no one should labour on the upper walls during the time of the preaching in the Lent of 1434, because the noise of the mallets and chisels would prevent the preacher in the Duomo below from being heard.

All these by-laws and a multitude besides are quite enough to show that, though Brunelleschi could command as far as the masonry of the cupola was concerned, he was working under the rule of a very arbitrary organization; and knowing his character, one can understand how all this surveillance and these hampering rules increased his dislike of the *maestranze*.

He found a difficulty in the fact that his underlings were a number of masters, each commanding his own file of workmen. They wanted to follow out the ways of their guild, each taking his own commission for part of the work, and carrying it out his own way. These men declared that each one of them ought to be given one face of the octagon; this not being done, they began to criticise Brunelleschi's plans and to form cabals against him. For a long time this moral friction continued. Brunelleschi was determined to be sole architect, and the others were jealous and restive under his arbitrary rule. At length, when he had found fault with some work a little more brusquely than usual, they struck. Not choosing to dispute his architectural knowledge, they said that the work was very fatiguing and perilous, and that unless their honorarium were very much raised

they would no longer go up to the cupola. Here they made a mistake, for their payment was at the option of the *operai*, and not of the architect of the cupola. Filippo consulted the *operai*, who promptly called a meeting on a certain Saturday evening, at which it was decided that the whole lot of masters—whose pay had already been largely augmented—should be dismissed.

We can imagine Brunelleschi taunting these disturbers of his peace, as he passed by their crestfallen faces out of the meeting, saying: "You thought I could not do without you: now you will see."

The next day he engaged several Lombards (Manetti says eight, Vasari asserts that they were ten), and, by showing them himself what he wanted done, they were at the end of the day quite at home in their work. The nonplussed "masters of the trowel," as Filippo scornfully called them, loitered about, feeling "out of it," for some weeks, and then condescended to send emissaries to the architect, offering to return on his own terms. He kept them on the tenter-hooks of suspense for some weeks, and then, as a favour to them, took them back at a lower salary than before.

"Thus," adds Vasari sententiously, "where they thought to gain they lost, and in trying to revenge themselves on Filippo they only injured themselves." Vasari seems to imply that this took place early in the course of the building, but if the two entries in the archives of the Duomo refer to the occasion, it must have taken place about Christmas, 1430.

I can only find one entry about a Lombard being engaged, which is dated some months before this, when,

on February 13, 1429, the Opera deliberated that the *caput magister* may engage a Lombard master (*possit conducere unum magistrum Lombardum*) to work and build on the cupola at the salary usual for that office. Probably this man was the means of securing Lombard workmen when Brunelleschi needed them.

The work went on energetically after this, the council ordering and ruling as usual. On August 27, 1432, a decree was made that neither Filippo di Ser Brunellesco nor Battista, the head of the works, nor any other master of the Opera, shall for six months forward undertake any work or commission except only that of the cupola; that if Filippo or Battista shall give any extraneous work to the masters employed there, they shall forfeit their commission, and consider themselves dismissed.

A similar decree was promulgated on June 20, 1436, when, wishing to bring the dome to a speedy conclusion, the council forbade anyone to absent himself from the works during all July under pain of dismissal. By this strenuous spurt at the last, after many years' labour, the great work was triumphantly brought to a conclusion (Plate IX.).

By 1432 the dome was so far advanced that they began to think of models for the lantern. Six master builders of the Opera, including Ghiberti, and one ambitious lady, a member of the Gaddi family, sent in models; but the one designed by Filippo Brunelleschi was ultimately accepted, and had to be enlarged and made in wood. Antonio Manetti, a clever master in wood, executed the model from Filippo's designs. His own was among the five rejected.

Brogi photo

THE DUOMO, FLORENCE

PLATE IX

On July 11, 1436, Nanni di Domenico, the servant of the *operai*, was ordered to buy five flasks of *trebbiano* wine, with white bread, melons, and plums, for the collation of the consuls of the Arte della Lana and the *operai*, when they inspected the model of the lantern. On July 24 Antonio Manetti received 35 lire 16 soldi 6 denari as the rest of the payment due to him for his work on the model designed by Brunelleschi.*

It was while these models were being made and the question of the lantern was being discussed, just as the great work was nearly finished, that the *maestranze* and their extraneous architect had their fiercest dispute. Baldinucci gives a very graphic account of this great scandal. After saying that there are in every age and every country some sordid persons who are not ashamed to vilify and injure others, he continues: "You must know, then, that the consuls of the Arte dei Fabbricanti (Building Guild), to whose rule every artificer was subjected, had up to that epoch, and at that time, demanded two taxes. One was called the 'matriculation fee' (when the apprentice graduated as master); the other was the annual tax paid by every person who was a member of that art. Now, the consuls of that time, seeing that Filippo Brunelleschi had intruded himself (*s' era ingerito*) in this grand building without matriculation, and without paying the said annual tax, they decided to proceed against him on this accusation. The *signori operai*,† being informed of this, strongly

* Guasti, "La Cupola," etc., p. 92, doc. 267, 268.

† Here we see that the *operai*, or administrative council of citizens, were quite distinct from the masters of the guild, and had not the same interests.

opposed such an imprudent resolution, and gave orders to the Guild not to take any steps without their permission; but some days having passed, and the affair gone to sleep (*addormentata la cosa*), the masters, without any respect either to the *operai* or Brunelleschi, unexpectedly caught the latter and put him into prison for not paying his fees. This 'strange and shameful deed' caused great astonishment and scandal in the city, some saying one thing and some another to explain it. At length the fact coming to the ears of the *operai*, they called an assembly, and made a solemn decree that Brunelleschi should be immediately released, and all the consuls of the Arte dei Maestri di Pietra e Legname should be in their turn imprisoned—the which command was promptly obeyed, to the good repute and honour of the *operai* and of Filippo, and with the applause and approbation of the entire populace." Here is the deliberation of the Opera on the occasion:

"An. 1434, a' 20 agosto.

"Operarii dicte Opere, etc., considerantes consules Artis Magistrorum civitatis Florentie; sub fide dicta eorum offitio, de non faciendo capi infrascriptum Filippum; fecerunt capi prefatum Filippum indebite et iniuste, et ex eo quod fieri fecit et facit edificium magne Cupole, et non solvit matriculam dicte Artis; quod resultat in dedecus et obprobrium dicti offitii, et ad hoc ut eorum offitium non deludatur; deliberaverunt quod provisor, caput magister et notarius dicte Opere, quam citius poterint, capi faciant consules dicte Artis, et recomendent penes unum ex rectoribus civitatis Florentie, ad ipsorum instantiam; et non possint relapsari absque eorum partito" (Guasti, "La Cupola," etc., p. 54, doc. 116. See doc. 3).

This is the story of Brunelleschi's defiance of the hitherto all-powerful Masonic Guild. He, being a man of his time, realized that the hour was come when art must be free, and throw off the ancient bonds that had held it for centuries. In those old times the guild did good service in protecting and treasuring genius and talent, which would have found no scope if standing alone; it kept traditions together, and formed a school from which all other schools sprang. But now that education in art, as well as in literature, was universal, and no longer shut up in convents and secret guilds, a new era had dawned. Courtiers and citizens could write books as well as monkish scribes. Individual artists and architects might paint, design, and build as well as the masters of obsolete traditional guilds—better, indeed, for the fetters of tradition no longer bound them.

The *maestranze* saw their monopoly passing away from them, and probably felt, though they would not confess it, that their old knowledge and skill, through constant dilution of their ranks by second-rate artisans, were also passing away. This was a spasmodic effort to retain their old power, but it failed. The great dome, which none of them had power to raise, stood tall and majestic before them, the work of a man who refused to join their guild! They revenged themselves by evil prophecies. As the summit became more and more closed in, rumours went round the city that the whole thing would certainly fall in with a crash before the keystones were placed, and that, if Filippo carried out his impious defiance of architectural laws by placing such a weight of marble as he proposed to do in the

lantern, ruin would certainly ensue, for the whole piazza was already strewn with the heavy marbles for the lantern. But Brunelleschi laughed them to scorn, and said "the heavier the weight, the better it would hold the cupola together."

They were silenced, however, and had to put a good face on it, when, on August 31, 1436, the whole Opera—consuls and masters—were called on to make rejoicings when the dome was finally closed. Simone di Lorenzo, the servant of the Opera, spent 72 lire 12 soldi on the expenses of this feast of benediction. He paid trumpeters and *pifferi* (pipers); he bought wine, bread, meat, fruit, cheese, macaroni, and other things for the masters and *operai;* the priests and Canons of the Cathedral being invited to share the feast. The benediction of the cupola was performed by the Bishop of Fiesole, who ascended the whole height of the dome to bless it. (Guasti, doc. 261, p. 91. See doc. 3.)

All the bells of the city were rung in peals of joy, and Brunelleschi was greeted with vigorous applause from the populace wherever he went. No doubt the masters hated those peals of bells, and felt that the cheers were a slight to them.

Is it, I wonder, a sad or a hopeful fact, that every glory is built on a past glory decayed? The masters could look around Italy and see the countless grand works built by their predecessors—works of which the fame could never be taken away from them. Even here in Florence they had for centuries set their seal; and the Palazzo Vecchio, Santa Croce, Santa Maria Novella, and even the great polychrome cathedral itself, would remain for ages to speak of them. Sad for them

that the crown of their last work in Florence should have been placed by one who refused even to enter their ranks!

After this the work of the lantern commenced. For this scaffolding was necessarily erected. Battista d' Antonio, the head of the works, and Filippo di Ser Brunellesco, with two of the *operai*, viz., Mariotto Laurentii and Marco Benvenuti, *eorum in offitio college* (*sic*), were, on January 15, 1436, sent to Campiglio* to inspect the quality of the marble there. The choice of marble seems to have dragged on a long time, for on July 17, 1438, we find the council again deliberating to send eight masters to Campiglio to experiment on the marble there.†

Filippo and Battista, head of the works, went to see these trial pieces on September 12, but they appear not to have been satisfied, for on November 12 Giovanni di Piero, a stone-cutter, was commissioned to cut and polish fifty white marble blocks from the quarries at Carrara as follows: sixteen bases (eight for the larger columns, and eight for the smaller), all made to the precise measure given by Filippo and Battista—*i.e.*, these sixteen bases to be two-thirds of a braccio high, hollowed in the centre as usual, and the remaining ones to be seven-eighths of a braccio high, the whole to be of perfect marble, and perfectly finished.‡ It was not

* Campiglio is in the Pisan Maremma. The best quarry there belongs to Count Gherardesca. A certain marble from it is called Broccatello della Gherardesca. This was used in early times for the Baptistery, and the Church of the Spina at Pisa.

† Of these, three have written after their names, "dixit nolle ire," so evidently they had wills of their own.

‡ Guasti, "La Cupola," etc., p. 97, doc. 282.

till August 21, 1439, that Battista and Filippo went to Carrara to inspect these bases when cut.

On December 5, 1442, Pietro Bertini, of Settignano, had the commission to carve the columns of white Carrara marble to be placed on these bases, the precise measures being given. The archives also name the carmen who brought all this marble to Florence, or, rather, to Signa, and thence by river, and the price paid them.

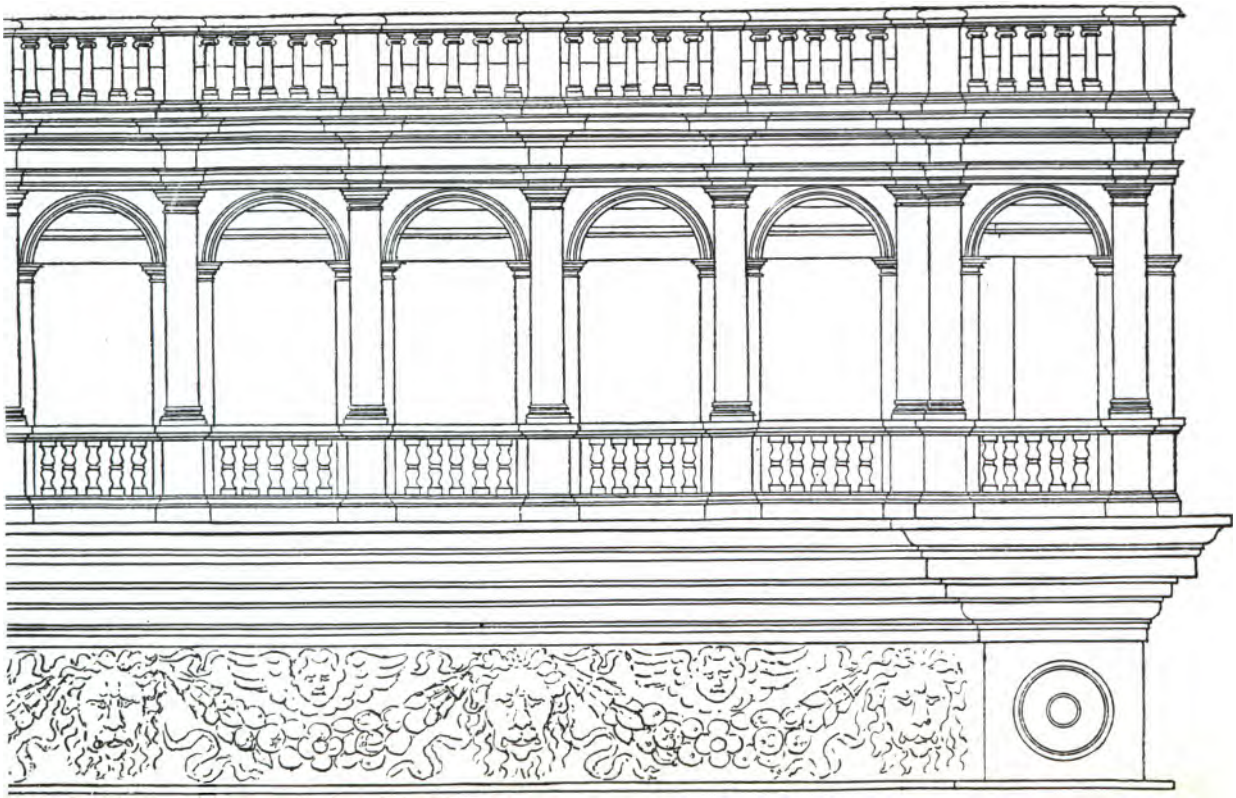
Brunelleschi never saw the crown of his dome finished; he died in 1446, and Michelozzi, his pupil, was elected *provveditore* in his stead. Antonio Manetti succeeded in 1452, and Bernardo del Borra in 1462. The "button" beneath the ball was ordered in 1467, and the ball in the January of the next year, 1467-68. This ball was cast by Andrea del Verrocchio, and was made of eight pieces of metal—brass and copper mixed with silver. It was $\frac{3}{4}$ inch thick, and $7\frac{1}{3}$ feet in diameter. The cross cast by Paolo di Matteo, of two pieces of fine copper $5\frac{1}{2}$ feet high, was ordered on August 4 in 1470. The gallery surrounding the base of the cupola, of which Brunelleschi had left a design, was not added till early in the sixteenth century, and then his model was not used for it.

"There should be," wrote Filippo, "an outside passage resting on brackets above the *occhi* (round windows), which shall have a perforated parapet about 2 braccia (44 inches) high, for the beautifying of the smaller tribunes beneath. Or there might be two galleries, one over the other, or an ornate cornice, the upper one being open." From the expression "perforated parapet," it would seem that Brunelleschi

intended the gallery to harmonize in style with the beautiful perforated gallery on ornate brackets which forms such a noble cornice surrounding the whole church, but unfortunately, by the carelessness of the authorities of the Opera, this design of Filippo's was lost, and in 1507 a competition was offered for designs. Five were sent in, but the one chosen was a joint work of Simone del Pollaiolo, otherwise known as Cronaca, architect of the Palazzo Strozzi, Giuliano San Gallo, and Baccio d' Agnolo. In 1508 the order was given to take down the frieze which had been begun on two sides of the octagon. It was a frieze of white marble, inlaid with black, the design a scroll and foliage, which has a classic quality blended with the freedom and richness of the quattro-cento. It was taken down because judged too small and poor for such a huge cornice.*

The eighth part of the gallery was unveiled on St. John's Day, 1515, but it did not please the critical public, who said it would look very bald compared with the beautiful cornice, with its carved brackets, which surrounded the cathedral. Michael Angelo was a strong advocate for its suppression. He did not hesitate to call it a *gabbia da grilli* (cage for crickets), alluding to the little cages in which the Florentines are wont to imprison poor little tree-crickets on Ascension Day. The gallery was never finished, and certainly the bit which remains looks stiff and cold by the side of the fine older Lombard cornice beneath it. Our illustrations show both these galleries (see pp. 31 and 82).

* This frieze was afterwards used to decorate two chapels near that of San Zenobi in the Duomo.



UNFINISHED GALLERY ROUND THE DOME SUBSTITUTED FOR ONE DESIGNED BY BRUNELLESCHI

CHAPTER IX

BRUNELLESCHI AS CITY ARCHITECT

ALTHOUGH Filippo devoted himself so earnestly to the work of the dome, there were times between the critical stages of the *catene* and cross-buttresses when the work could go on for weeks, overlooked only by the master-builders employed under him. He was thus able to give his attention to other commissions, and as soon as he won the distinction of being *provvisore* of the great dome these commissions poured in on him.

He soon became the fashionable architect, the most influential families coming forward one after the other to beg him to make plans for their houses, or *palazzi*, as the grandiose domestic buildings of the day began to be styled. From the early days of the republic, Florence had a solid style of domestic architecture all its own, or shared only with other of the independent Tuscan cities, whose safety depended chiefly on the strength of their walls. Between the constant wars of city with city, and the internal factions which devastated each single city, it became necessary that the home of an influential family that had a stake in the Government should be a fortress as well as a palace. A fortress, to be able to withstand the first impetus of a city broil, or rebellion of the populace; a palace, to display the power and magnificence of the nobles, and to give shelter to all their partisans and dependents. Thus a Florentine palace *à la mode* was strong and solid as the Bastille, as far as regards the ground-floor, which had small iron-barred windows, and almost cyclopean

masonry, showing its descent from the Etruscans; and elegant, richly decorated, and magnificent, in the upper stories, where Renaissance nobles lived their art-surrounded lives. There was a fine field for the career of a civil architect in Florence in those days, and Brunelleschi soon rose to eminence in that career. The first work with which we find his name connected is some internal alteration in the Palace of the Priors, where he had to transform some open *loggie* into rooms for the offices of the Monte del Comune.* He made a design for this part of the palace, but it did not satisfy him, and he would not put it in execution, so he went to Rome to study ancient architecture, and when he returned he built the rooms in the fine style they are shown at present.† Great stress is laid by all the biographers on this taking place in the time of Filippo's youth, so we take it as dating about 1417, during the time he was so frequently in Rome.‡

If this refers to the Palazzo Vecchio it is difficult now to distinguish Brunelleschi's part of the work as the building afterwards underwent a complete restoration by Baccio d' Agnolo.

* The Monte del Comune was the treasury of the public funds. The introits were from taxes, custom dues, fines, tithes, penalties, and banking profits in general. The people took shares, as we do, in the funds, and received so much per cent. on their investments.

† Baldinucci, p. 170, edition edited by Moreni.

‡ "Occorse ne' tempi della sua giovinezza che s' ebbe a murare nel palazzo de' Priori l' Uficio e Residenza degli Uficiali del Monte, e la stanza de' loro Ministri, che è in quello luogo, dov' erano la maggiore parte loggie con colonne fatte a pompa del palagio, ed a bellezza de' loro tempi stimate, che vi si possono ancora vedere. Lui ne fu richiesto e per architetto e perd isegno, e per conducerlo, e così fece." —Moreni, "Due Vite," p. 295.

Hitherto his works had been only parts of buildings, such as the dome of the Barbadori chapel, and these adaptations.

Filippo's next public work was the palazzo of the Captains of the Guelph faction, but the accounts of the building itself and its uses, and the part which Brunelleschi had in it, are so conflicting that it has been one of the archæological riddles of Florence for some time. In the first place, some guide-books call it the Arte della Seta, others Palazzo Comunale, some the Monte Comune, and others the Palazzo della Parte Guelfa. The fact is that at different eras it served all these purposes.

This great and fine old edifice stands in the Via delle Terme, near the Via Por Santa Maria, and is as Protean as its names. The ground-story is of fine, solid old twelfth or thirteenth century architecture, the upper, of fifteenth-century Florentine style; the interior is decorated with classic Corinthian pilasters. Fabriczy takes the whole building as Brunelleschi's even to the ground-floor, pinning his faith to a certain pretty moulding at the corners, in which the massive stones are chamfered so as to imitate a slender shaft, with foliage carvings at the capital and at the base, and says that 'in this corner pillar Brunelleschi wished to introduce an element of life and lightness into façade decoration,' and that Leon Battista Alberti followed it in the Rucellai and other palaces.*

With all due deference to Fabriczy, whose learning

* This corner moulding is to be seen in several of the older buildings in Florence. The Palazzo dei Castellani in Piazza dei Giudici built in 1333 is an instance.

and research are immense, I think that in this case his judgment has erred. The ground-floor is, as regards its external architecture, of much earlier date than Brunelleschi. One has only to compare the clear-cut, staccato effect of the rustic masonry in a Renaissance palace such as the Pitti, the Strozzi, etc., with the solid, close-set, smooth-hewn building of the older thirteenth-century parts of the Bargello, the Palazzo Vecchio, the Badia, etc., to see that the basement of the Guelph palace is of the epoch of the latter buildings, and not the former. Besides this, we may note that though the interior is purely classic, the exterior is as purely Tuscan in style, as the architect harmonized his upper part to the older basement. If he had built the whole it would have been in Renaissance style inside and out. Again, Fabriczy speaks of the Guelphic palace being *built* by Della Luna and Brunelleschi, but it is a certain fact that all the biographers speak of a mere adaptation of an existing building to new purposes, but none of them speak of building the outer walls except in the upper stories. The date of the commission is not known, but, as the hall of audience was used for state ceremonies in 1422, it must have been before that year.

I have made some researches into the former history of the palace. From the "Studi sul Centro di Firenze," published by the Communal Storico-Archæological Commission, and from Guido Carocci's "Il Mercato Vecchio," we find that when the Ghibellines were exiled, and their goods confiscated, the Captains of the Guelph party used this one of the Lamberti palaces as their headquarters, and that in Brunelleschi's time they commissioned him

to modify the interior, and make therein a large room of audience, for the Guelphs being in power at that time, it was the absolute seat of government.

According to Manetti (Moreni, "Due Vite," p. 338), the design included a certain flat pilaster resting on the cornice; but in the side towards the Terme this pilaster was wrongly placed, and the effect Filippo meant to produce was spoilt. Manetti, bewailing the architect's ill-fortune in so often having his designs misrepresented, says, without naming the culprit, that it was the same who spoilt the façade of the Innocenti Hospital. This was Francesco della Luna, said to be a scholar of Brunelleschi, who appears to have possessed a genius for making mistakes in architecture. He was a member of an old and wealthy family who had their palace in the centre of the city. Della Luna had already raised the walls above the cornice some 2 braccia (about 4 feet), when it was discovered that he had made many errors, and the commission for the building was given to Brunelleschi. This is Vasari's version; but Manetti speaks as though Francesco and other masters were only employed to begin the work on Brunelleschi's own plans, as he was away from the city, and that when he returned he superintended the works himself.

Armed with a letter from the Syndic, we went to explore the Palazzo Guelfa, and found that between Vasari and modern botchers Brunelleschi's splendid hall of audience has been cruelly mutilated. When, in later days, the building was destined for the offices of the Monte Comune, Vasari blocked up the end of the room with an ugly staircase, put a floor halfway up its height, and threw out a *loggia* at the corner in the Via de'

Carpacci, thrusting the heavy stone brackets right into the pretty columnar chamfering at the angle (Plate X.). Later utilitarians have still further cut the building up into numberless class-rooms for a communal school; they have covered the beautiful old timbered roof with lath and plaster, and whitewashed the Corinthian pilasters on the staircase. Could any other indignities have been offered to a grand work? Yes; they have cut a big square staircase window right across Brunelleschi's beautiful arched one; it reaches from one floor to another, down through the fine old cornice which runs round the building. Sadly we wandered through the sordid class-rooms and lobby, tracing a fluted pilaster there, and one here, till we discovered and measured the whole length and breadth of the hall, which was once of magnificent proportions, nearly 80 feet long and 40 broad. There were three Corinthian pilasters at each end, and five at the sides. On one side were the four immense windows which were arched on the outside and square inside; the mouldings are still to be seen. In Brunelleschi's plan these arched windows were probably filled in with the double arch, as those of his Pazzi and Pitti palaces were. Of the height of the hall we were not able to judge, as the present floor seems to cut off the pilasters at more than half their height. Only one little corner of the grand old timbered roof, of deep box squares richly carved, is left to show what it must have been; our imagination could, however, picture the effect it must have produced when entire and profusely gilded, as Cinelli tells us it was. "Una soffitta tutta dorata e bellissima in riguardo del tempo che fatta fu."*

* Cinelli, "Le Bellezze di Firenze," p. 576.

Brogi photo

VASARI'S LOGGIA OF THE PALAZZO DI PARTE GUELFA, FLORENCE

(Via di Carpaccio)

PLATE X

The arms of the Guelph faction, given them by Pope Clement IV.—an eagle vert and a dragon—were then emblazoned in the hall.

Although the interior was of such pure Renaissance style, yet Brunelleschi, as we have remarked, showed his good judgment in keeping the exterior to the old Tuscan style; for the palace belonged to an institution of the early republic, and had the fortress-like character of those days. Indeed, he could not, being a man of correct taste, have grafted a Renaissance upper story on the solid old basement of the mediæval Lamberti palace. The part of the building not used for the school is now utilized as a deposit for the archives of the suppressed Monte del Comune.

In 1421 the Guild of Merchants commissioned Brunelleschi to design a portico for the Foundling Hospital on Piazza della SS. Annunziata. Filippo prepared the plans; but, as he was called to Milan to design a fortress for Duke Filippo Maria Visconti, he left his pupil or assistant, Francesco della Luna, to superintend the work at the Foundling Hospital. The State archives of Florence (book of the Innocenti Hospital) prove that Francesco della Luna was employed on this building from 1421 to 1444, sometimes alone, sometimes with other masters. It appears from Manetti's account that Filippo had not made a model in wood, but only drawn the designs and explained them *viva voce* to Francesco and the masters and men employed under him. On his return from Milan, Filippo went at once to see the work, and was much displeased to find that Francesco had used his own mind on a very important point, and had in his opinion ruined the building. He had added

a portion of bare wall at the south end, which destroyed the symmetry of Filippo's design ; and not only this, but he had also continued the cornice forming the architrave above the arches, turning it down at the ends so as to form a framework for the wall, instead of placing a pilaster at the ends of the building to give it a support. Filippo was horrified.

"An architrave which runs perpendicularly is an utter falsity in architecture," he cried to Francesco. "Where did you ever see such a thing?"

To excuse himself, Francesco said he got it from the Baptistery. (There is a similar cornice framing the eight sides of the highest part.)

"If the ancients made such a bad mistake as that," said Brunelleschi bitterly, "it is the only one in that edifice, and yet you must needs choose to repeat it."

This is the version of Baldinucci (see Moreni, "Due Vite," etc., p. 267), and he adds that the error was irremediable, unless a great part of the corner wall were pulled down; so it had perforce to remain as it was, and as it is to this day.

The proportions of the arcade forming the portico of this hospital are peculiarly light and harmonious, and one can easily imagine how vexed the designing architect must have been to have them ruined by an idiotic architectural impossibility. The errors so plainly indicated by the biographers Manetti and Baldinucci are confirmed by the books of the Foundling Hospital, which contain entries of the payments made to the builders from 1419 onwards. I quote Fabriczy's extracts from the "Primo libro di Conti dell' edificazione del nostro Spedale,"

marked "A. 1419 e 1420," etc.,* pp. 555 to 575. The first (1419) speaks of the hospital which the Arte della Seta wished to build, and records that 1,700 gold florins were paid to Messer Rinaldo degli Albizzi for a walled garden, as part of the site. In 1422 Filippo Brunelleschi's name appears as one of the *operai*.†

We gather from these account-books that on August 6, 1419, Maestro Ambrogio di Lionardo began the foundations of the hospital, and the usual tax on beginning a building was paid (fols. 9*r* and 9*v*). By March 24, 1419-20, the foundations were laid for the portico (fol. 14*r*).

Jacopo di Agnolo di Bono of Settignano is paid on August 17, 1420, 20 florins for bringing the column and capitals (fol. 31*v*).

On January 4, 1420, Andrea, a workman, received 8 lire 8 soldi and 6 denari for setting up the first column. Then follow other payments for setting up pillars, placing pilasters, and building walls, till, on

* In the title-page is written in old Italian: "This book of the Hospital of Santa Maria degli Innocenti was begun by Andrea di Bonaventura, and by me, Andrea di Domenico, manovale (workman)."

† The *operai* formed the council of administration when any architectural work was going on. The members were representatives of the patrons and of the builders, the chief master of the latter usually being one of them. Here we have in the queer orthography of the time:

"*Operai del suddetto spedale per tutto aprile*, 1422.

Paolo di Ridolfi di Paolo Lottj
Patrizio di Giovanni di Franciesco } pel membro della seta.
Niccolo d' Andrea Carducci, pel membro del taglio.
Jacopo di Ghueriante da Empoli.
Lorenzo di Pietro Borsi, pel membro de fondachaj e Orafi.
Filippo di Ser Brunellesco."

March 16, 1423, Albizzo di Piero, stone-worker, is paid 853 lire 2 soldi 6 denari for cutting nine arches for the portico, and besides this 4 gold florins for the rounds between each arch (*i.e.*, the frames to Andrea della Robbia's babes in swaddling clothes (fol. 62*r*). In 1424 is a significant little note. Buto di Nicholo (*proveditore* of the works) is to be paid 11 soldi for his expenses in going to Pistoja to fetch Filippo di Ser Brunellesco, who was wanted by the *operai* (fol. 86*r*). The counsel of the designing architect was no doubt required, but not for the offending architrave, which was not yet placed; that comes in April, 1425, when Albizzo di Piero, the stone-cutter who made the arches, was paid 317 lire 4 soldi for 61 braccia of "cornice e architrave di concio" (ornamental cornice and architrave).

It seems strange to begin a building by its façade, and to add the building itself afterwards, yet this is what must have been in great part done at the Foundling, for after these entries, up to 1425, we find the accounts only refer to the walls and floors and roofs of the main edifice, and they go on up to 1449. The chief master-builder of this part appears to have been a certain Maestro Gieri, with his sons Antonio and Francesco, whose names are constantly down for large payments. It is difficult to say what part Francesco della Luna really took in the work. Fabriczy mentions no payments made to him, but he is one of the *operai* in 1427, where the page of the records begins:

"1427. Al tempo degl' infrascritti operai che entraron inficio (*sic*) adj primo di maggio detto anno 1427." (In the time of the undermentioned *operai* who entered in

office on the first day of May in the said year 1427.)

"FRANCESCO DELLA LUNA, setaiuolo.
JACOPO DI SER FRANCESCO CIAJ, ritagliatore.
SANBENE (SALIMBENE) DI LIONARDO BARTOLINO, fondachaio."

Fabriczy translates *operaio* in this case as "workman," but it is a misinterpretation, the *operai* being, as I have said, the administrative council. From the early ages all works referred to the "time" (*in tempore*) of such and such a council of *operai*. Francesco della Luna formed one of the council in virtue of his office as head of the works. He is again mentioned as *operaio* from 1435 till 1440. In fol. 46*r*, 1435, he is distinctly called *proveditore*, or master-builder.

In 1437 (fol. 126*r*), when Francesco is still acting as *operaio*, Bocaccio, who keeps the book of records, is the *proveditore*. In any case, the name of Francesco della Luna is continuously in the archives as one in authority, while Brunelleschi's only appears at first, so we may suppose that he either resigned when his design was altered, or that he was merely engaged as designing architect, and not actual builder.

It is also possible that between the dome and the works of the Church of San Lorenzo, which were begun in about 1425, Brunelleschi had more important works on hand, and left the Foundling Hospital to his assistant.

There is another *loggia* in Florence very like this one, which is attributed to Brunelleschi—the Loggia di S. Paolo in S. Maria Novella. The proportions and style are very similar, and here again La Robbia

medallions adorn the spaces between the arches, but there is no documental proof to be found that Brunelleschi had anything to do with the building. The two medallions at the corners have the dates 1451 and 1495, both too late for him, unless the decorations were added much later than the building (Plate XI.).

The work of Filippo Brunelleschi in the cathedral was not confined to the cupola. He took part in most of the councils held in the Opera, and his advice was always respected. In 1428 the Opera decided that the central tribune in the cathedral should be dedicated to St. Zenobio,* and that a hollow altar (*altare vuoto*) should be constructed, beneath which the tomb of the saint should be placed. A statue of him 5½ feet high was to be placed above, and the whole surrounded by a grating, so that people might see and not touch.

It was not till April 30, 1430, two years after this "deliberation," that Filippo di Ser Brunellesco and Battista d' Antonio, head of the works, really had a commission to design "a fine and worthy altar for the tomb of St. Zenobio which Ghiberti, the most skilled sculptor for these things ('scultore come a più perito di quelle cose') was making." Again the inseparable but rival names are associated. Ghiberti's beautiful bronze sarcophagus is world-famous, but Brunelleschi's subterranean shrine is rarely visible, being only open on the fête of St. Zenobio, May 25. The

* The cult of this saint was revived in 1330, when the Bishop Francesco da Cingolo found the body of St. Zenobio 18 feet below his altar in the Church of Santa Reparata. He had the head taken out, covered with silver, and put into a strong stone coffer, and a special day was set apart for the veneration of the saint.

Brogi photo

THE LOGGIA OF SAN PAOLO, FLORENCE

PLATE XI

work was begun the same year; at least, the vault beneath was built, "so that the floor above should not sink." Affairs seem to have dragged, however, for in 1438 a council of masters was called, and the following report* given: "The sarcophagus of St. Zenobio is to be placed in the centre under the arch of the said chapel facing the choir. It is recommended that the vault beneath shall be made as flat as possible to give more space below, and that in its roof a window shall be left which will come partly under the upper altar and partly above the altar below (the size of the window to be the width of the altar, and 2 feet 9 inches in height. This window has two uses—one to air the vault below, and the other that devotees in the church above may see the lights on the altar below. The sarcophagus made by Lorenzo Ghiberti is to be placed beneath the upper marble altar, the front of it being toward the back of the altar, so that devotees at the window may have that, as well as the shrine below, before their eyes. Before this window there shall be a grating . . . and this part shall remain always open. There shall, moreover, be in the front of the tomb a door, so that the silver-covered head may be taken out and replaced as occasion requires. This part shall be covered by the *palio* of the altar.. It is understood that in the lower chapel, where the bones of St. Zenobio lie, lamps shall be always lit and devotions maintained."†

* I have shortened this from the prolix Italian of the original given in Cavallucci's "S. Maria del Fiore" (Storia documentata), pp. 163, 164.

† The translation of the body of St. Zenobio from the catacombs of the Duomo, where it was placed in 1330, to the new subterranean chapel made by Brunelleschi and Battista d' Antonio, was celebrated

The subterranean chapel is only a very small one. The ribs of the vaulting form a depressed arch, proving that the advice to "keep the roof flat" was followed, as well as that regarding the window. There is neither fresco nor sculpture, nor even a bit of moulding to adorn it. Even the altar is but a slab of stone on four pillars. The chapel contains the funeral urn which held the head of St. Zenobio, and the extremely mediæval sarcophagi of two early Bishops —St. Mauritius and St. Probus.

Brunelleschi also had a good deal to do with the building of the two sacristies, which are made in the solid parts between the three tribunes, that help to support the cupola. In 1442 a council was held to discuss the interior decoration of the older of the two sacristies. Lorenzo Ghiberti advised adorning the roof and walls with mosaic, and making the presses of white marble, with doors and shelves of *intarsia* (inlaid wood). Neri di Gino, Giovanni di Ser Luca, and Francesco della Luna voted for *intarsia* entirely. Filippo Brunelleschi voted that the sacristy should be entirely faced with marble, and the presses made of polished coloured marble, the doors being of bronze chiselled with foliage designs, and lined with wood damascened with bronze. Some other masters who were marble-cutters advised inlaid marble (it was evidently every man for himself), because they said intarsia, being only wood, was not durable enough. Intarsia carried the day, however, and Agnolo d' Arezzo and

with great pomp in 1439, and was attended by Pope Eugene and the Emperor Palæologus, with all the members of the Council at Florence which met to propose the union of the Greek and Latin Churches.

Antonio Manetti were among those who had the commission, though it is said Donatello gave the designs.

This sacristy contains a remarkable specimen of Brunelleschi's ingenuity—his famous *volta piana* (flat arch). This does not mean merely a depressed arch, but literally a straight and flat bridge built of long blocks of smoothly hewn stone placed slantingly on each side of a keystone, and self-supporting. It is, in fact, the masonry of the arch without the curve. When, between the years 1431 and 1440, while Donatello and Luca della Robbia were carving their lovely groups of singing maids and joyful children for the organ-gallery and the one for the choir, which were to be placed over the doors of the two sacristies, it was necessary to prepare the stairways that gave access to them.* The only means of entrance was by carrying a passage right across the sacristy, and the crucial question was how to do this without its being a blemish to the interior of the well-proportioned sacristy. An arch would presuppose pillars or pilasters, which would spoil the square of the room and take up space.

Brunelleschi came to the rescue with his inventive genius, and threw this bridge across the entrance, with a sculptured and perforated parapet which forms a fine cornice above the arch of the door. The great stones seem supported on air, yet they have made a safe passage for nearly five centuries, by which the singers may pass

* The commission was given on October 5, 1436, as the following deliberation of *operai*, quoted by Baldinucci (note to p. 284), shows: "Praefati Operarii deliberaverunt, et commiserunt Philippo Ser Brunelleschi faciendi voltas, et arconem; pro ut est ab eo designatus in Sacrestia nova. ecc."

to their gallery without disturbing the priests robing themselves below. This interesting work was at one time plastered over, so that the peculiarity of its construction was quite lost sight of. The stones of the "flat arch" are now cleared and visible, though the gallery has not been of much practical use since the removal of Donatello's and La Robbia's famous sculptures to the museum of the Opera.

In 1435 Brunellesco was commanded by the authorities to prepare a plan for the choir of the Duomo. His design was an octagon enclosure which was temporarily executed in woodwork. It remained so till the time of the Grand-Duke Cosimo, who commissioned Baccio Bandinelli to put it into a richer form in marble. Some of his marble panels in relief are now to be seen in the museum of the Opera; others remain in the parapet of the choir.

CHAPTER X

BRUNELLESCHI AS CHURCH-BUILDER

IN the beginning of the fifteenth century the very ancient Church of San Lorenzo (Plate XII.), which dated from the time of St. Ambrose, was in such a state of dilapidation as to render it unsafe, and the *popolani* of the commune decided to rebuild it.* It was first erected in 390, by a widow lady named Giuliana, and had been

* Del Migliore and others assert that the old church was burned, but this has been convincingly disproved by Moreni and Canon Cianfogni.

Brogi photo

THE CHURCH OF SAN LORENZO, FLORENCE

(1423)

PLATE XII

Brogi photo

INTERIOR OF THE CHURCH OF SAN LORENZO, FLORENCE

PLATE XIII

Alinari photo

THE OLD SACRISTY, SAN LORENZO, FLORENCE

PLATE XIV

restored and richly endowed in 1059-60 as a collegiate church. It was now decided to enlarge it, and the Signoria conceded to the Canons a street behind the tower called Via dei Preti, with faculty to oblige the owners of the houses there to sell their property to the Church.

The first stone was laid in 1418 by Pope Martin V., who was then a refugee in Florence. The Prior of the church was a dabbler in architecture, and assumed the office of making the plans himself. He had commenced to place his brick pilasters, and the work was beginning to be criticised, when one day Giovanni di Bicci de' Medici asked Brunelleschi to dine with him, and talk over the plans for the sacristy and a family chapel which he had promised to add to the church at his own expense. During the conversation Giovanni dei Medici sounded Filippo as to his opinion of the Prior's architecture. He generously praised it, but Giovanni asked: "Could not you suggest anything better?"

"Doubtless," replied Filippo; and he launched into an enthusiastic description of the noble temple he would have made, if he had been the architect.

Giovanni de' Medici, who was both wealthy and patriotic, found his imagination fired by this, and he said: "If other families who want chapels will only come forward and aid the expenses, I will build not only the sacristy but the *cappella maggiore* (tribune) as well, and we will throw away the present plans and erect your grand temple."*

Filippo's plan was drawn for a large basilica in form of a Latin cross, with a nave, two aisles, and a raised

* See Moreni, "Due Vite," etc., pp. 339, 340.

tribune. The proportions were noble and harmonious, the design simple yet grand. But it did not meet with general approval. Richa ("Delle Chiese," vol. v., p. 17) says there were tumults among the *popolani* to such a degree, that the Commune, seeing the works were stopped, made a proclamation of exile for life (*bando di vita*) against anyone who opposed Brunelleschi's plan being put into execution.

Giovanni de' Medici's example was followed by several of the principal families, who in return for large gifts of money wished to have chapels in the church. The first patrons were seven—the Rondinelli, Ginori, Stuffa, Neroni, Marco di Luca (Corsi) and Ciai families. Afterwards the number was increased by the Medici of Via Larga, Marignolli, Taddei, Martelli, Inghirami, Aldobrandi, and Cambini. Funds being thus found, the foundation-stone was laid on August 16, 1425, by Archbishop Amerigo Corsini, and Brunelleschi's basilican church began to rise. Having recovered from their chagrin at the change of plans, the citizens took great interest in the building, so much so that the continual concourse of people looking on gave great annoyance to the workmen. Symonds* says that "Brunelleschi in 1425 designed the basilica of S. Lorenzo, after an original but truly classic type, remarkable for its sobriety and correctness. What he had learned from the ruins of Rome he here applied in obedience to his own artistic instinct. S. Lorenzo is a columnar edifice with round arches and semicircular apses. Not a form or detail in the whole church is, strictly speaking, at variance with Roman precedent, and yet the general effect

* "Renaissance of Fine Arts," p. 73.

Alinari photo

CAPITAL OF A COLUMN IN THE BADIA, FIESOLE

PLATE XV

resembles nothing we possess of antique work. It is a masterpiece of intelligent Renaissance adaptation."

We give a view of the nave of the church which shows the simple purity of line which is a mark of Brunelleschi's architecture (Plate XIII.). He has chosen ornate Corinthian capitals with an abacus, supporting beautifully moulded circular arches.

A curious limping effect is remarked by many writers, caused by the fact that the columns have only a slight plinth and no base, which gives the effect of their standing lower than the pilasters, which have a higher base. Baldinucci (Moreni, "Due Vite," etc., p. 248) says this was a license taken by the builders, who continued the work after Filippo's death, and was done in revenge for his successful rivalry of them during his life. They also altered his design of the tribune, as we find from a long and quaint account of a master, Giovanni di Domenico Gaioli, in a letter to Giovanni de' Medici, in which he gives the blame of the infidelity to the design of Brunelleschi to Antonio Manetti. However, the general effect is so fine, that this may be taken as a mere bit of pseudo-criticism without much value.

Brunelleschi's scheme for the chapels, which in many churches are of different and often inharmonious designs, is uniform and analogous to the classic simplicity of the building. They form a continuous row of simply moulded arches, alternated with fluted Corinthian pilasters with a cornice above them. The Corinthian was Brunelleschi's favourite order, but, as Burckhardt says, "he gave it a grace all his own" (Plate XV.). In his hand the acanthus became varied and mingled with other forms and mouldings, so that his columns are

nearly as multiform as those of the Lombard builders. Unlike them, however, he kept the design uniform in the same building. Indeed, the perfect homogeneousness of his buildings is their greatest charm.

The sacristy had been already begun while the question of the church was pending. Before it was finished Giovanni de' Medici died; but his son Cosimo (Pater Patriæ) was equally large-minded, and continued the work of his father. It was finished by Brunelleschi himself before he died, and is one of the best specimens of his adaptation of classic forms to modern uses. The doorways as Filippo designed them are noble pillarless arches with rich sculptural embellishments. Cosimo's tomb by Verrocchio stands in a similar finely moulded arch. A frieze of medallion heads of seraphim runs round the whole edifice, and above this the arches of the simply groined roof arise.

Every touch of ornamentation except Donatello's bronze doors is classic, and it was about these doors that the two old friends had (as Manetti tells us) a serious quarrel. The doorways had been left unfinished till it was decided whether the doors were to be of wood or bronze. At length Donatello had the commission to cast them in bronze, and, unfortunately, the order for the portals of them in *macigno* (a hard dark stone) was also given to him. He was so proud and arrogant about this, that he never consulted Filippo or anyone else as to the style in which the doorways should be, and he certainly kept to classic pillar and pediment; but the effect of two short fat columns and a heavy triangular pediment stuck in the centre of Brunelleschi's sculptured arch and flanked by his tall fluted Corinthian

Alinari photo

THE CAPELLA PAZZI, SANTA CROCE, FLORENCE

PLATE XVII

pilasters is not happy. In fact, it detracted from Donatello's own fame, and brought scorn on Filippo himself. He, however, published some satirical sonnets which announced that the little stone doorway with its bronze doors was not his, nor was he, in fact, responsible for anything that stood between one pilaster and the other.

The pretty cloister and Canons' houses were designed by Filippo, though some changes were made when Michael Angelo built the Laurentian Library. On March 16, 1435, the Signoria ordered the enlargement of the Piazza di San Lorenzo,* probably to give greater majesty to the façade, which was, however, never placed.

We now come to one of his masterpieces, the chapel of the Pazzi family in the cloister of Santa Croce. It was begun at the expense of Andrea Pazzi and his brothers. Most of Brunelleschi's biographers date the commission 1420, but Jodoco del Badia† gives an extract from Andrea's Portata al Catasto (tax-papers) for 1433, in which he says he has 2,000 florins in the Monte Comune, which his son Piero will inherit, but that for six years the interest is alienated, having been pledged four years since to the *operai* of S. Croce to build the chapter-house and chapel in the cloister there. This points pretty decisively to 1429 as the date of the commencement of the building. It might have been fixed much more certainly if Messer Andrea's *libri della muraglia* (books of the building) of the chapter-house—which books were continued by his son Jacopo

* Gaye, "Carteggio," etc., vol. i., p. 552.

† "Raccolta delle Migliori Fabbriche antiche e moderne di Firenze," part i., p. 15.

—had not been confiscated and destroyed after the conspiracy. The work was presumably nearly finished by 1443, when Andrea hurried the builders to finish it, so that Pope Eugenius IV., who came to Santa Croce on February 7, might have the use of the room above the chapter-house, in which, in fact, he dined on that day. Messer Andrea, dying in 1445, decreed in his will that the interest of 16,000 florins invested in the Monte (and which afterwards would belong to his wife and sons) should, until the work was finished, be employed in this building. The family protested against this entire alienation of their property, and they must have obtained a modification of it, for the will of Antonio dei Pazzi, made in 1451, proves that the building had been completed by himself and his three brothers, each contributing a third part to the expense.

In this beautiful little building Brunelleschi determined to show how his studies in classic architecture might revolutionize the art, which had fallen into mannerism in the hands of the masters of the Building Guild. The ground-plan of the chapel is square, with an apse surmounted by a dodecagonal depressed cupola. The decorations of the cupola are by Luca della Robbia. They consist of medallions with beautiful reliefs of the four Evangelists, and the twelve Apostles beneath them, in white on a blue ground. The drum of the cupola is pierced by twelve round windows.

The building has a charming atrium in the form of a waggon-vaulted arcade, with a small dome over the central arch, which is decorated with majolica medallions by Luca della Robbia, and has the Pazzi arms in the centre. The outer columns and the pilasters on

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VESTIBULE OF THE CAPELLA PAZZI, SANTA CROCE, FLORENCE

PLATE XVIII

Alinari photo

ENTRANCE TO THE CAPELLA PAZZI, SANTA CROCE, FLORENCE

PLATE XIX

Alinari photo

INTERIOR OF THE CHURCH OF SANTO SPIRITO, FLORENCE

PLATE XXI

Private photo

TRIBUNE OF THE CHURCH OF SANTO SPIRITO, FLORENCE

PLATE XXII

the wall of the façade are composite; the four windows between the pilasters are simple round arches without columns, the inner arch being richly moulded. In the door Brunelleschi has reproduced Vitruvius' triangular pediment.* It is, however, decorated as Vitruvius never imagined, with a relief in the tympanum representing St. Andrew with a cross in his hand and two angels. He has, however, atoned to the classics for this by decorating his architrave with two very classical genii, holding a bay wreath, encircling the Pazzi arms, two upright dolphins and five crosses. Above the columns runs a broad cornice with a row of medallion seraphim, which has been attributed either to Desiderio di Settignano or to Donatello.

Altogether the Pazzi chapel is a beautiful little building, and a very important one, as it marks the birth of Renaissance architecture. Whether this was an unmitigated gain may to some minds be doubtful, for the humanist movement of the times in Italy caused the Italians to seize this renascent classic style with such avidity, that it may be said to have entirely choked off the development of Italian Gothic. Italy lost a warm, rich, symbolic and elegant style which might have developed into something glorious, and her architecture was put back into the bonds of classic rule. Sculpture, which was the visible interpreter of religion in Lombard and Gothic architecture, was now entirely

* It is possible that this is the first Italian instance of this revival, which afterwards became so hackneyed and so abused; for Brunelleschi's imitators, led by Michelozzi, did not hesitate to vary it by truncating the upper point of the triangle, leaving it broken, or making an arched pediment with the keystone of the arch left out.

severed from its sister art. A few genii playing among garlands, as they used to do on Roman tombs, or two floating seraphs holding a circlet, were now the only decorations for an architrave, while the arch lost the old profuse richness of moulding and scroll, of niche and statue, and was beautified only with set classic designs. The theory was that architecture could stand alone, and that purity of line and of form was its true and only distinctive mark. Certainly Brunelleschi was past-master in the art of pure lineal design, and harmony of parts in form.

The Florentine Lodge appears to have broken up soon after this, but it was first divided into two parties. Such artists as clung to the richly ornate older style went off to Venice and joined the Lombards there. Of these the principal were Sansovino and Luca Fancelli, but even they were converts to Renaissance architecture, though they held to richness of decoration. The others, such as San Gallo, Baccio Pontelli and Giuliano da Majano, went to Rome, where numberless Renaissance buildings were then springing up.

The architect's grand masterpiece was the Church of Santo Spirito, which dates from about 1428 (Plate XX.).

Every art historian agrees that the Church of Santo Spirito was built by Brunelleschi, but owing to the popular legend that it was begun after being destroyed by fire on the occasion of the fêtes for the entrance of Gian Galeazzo Visconti, Duke of Milan, in 1470, it has remained a problem how an architect could build a church which was begun twenty-four years after his

Brogi photo

THE CHURCH OF SANTO SPIRITO, FLORENCE

PLATE XX

death. Baldinucci* explains this problem. He asserts that the fire of 1470 took place in the old church of Santo Spirito, and that the new church, which was begun between 1428 and 1430, and was then in process of building, stood next to it, and was not touched by the fire.

This new church was the actual result of a religious revival. A certain eloquent preacher named Francesco Mellino, to whom Vasari gives his nickname of Francesco *Zoppo* (Lame Francis), awoke the ambition of the congregation by inciting them to build a new and more worthy temple, saying it was a shame to them that the principal church of that quarter of the city should be so poor and ineffective, having neither piazza nor other convenience. Several of the parishioners, such as Messer Lorenzo Ridolfi, Bartolommeo Corbinelli, Neri Capponi, Goro di Stagio Dati, united together and obtained from the Signoria permission to build a fine temple.

They elected five *operai*, or administrators of the building funds, and Stoldo Frescobaldi, who was very rich and devout, became treasurer, providing the funds for the beginning of the work from his own private purse. Other patrons soon followed suit, and Filippo Brunelleschi was chosen as architect. His first plan would have given the church a different orientation. He wanted to make a grand front on the banks of the Arno, but there were insuperable difficulties in the way of this project. The house-owners in Via Santo Spirito absolutely refused to demolish their houses, so a space had to be cleared further back, and the façade faced

* Moreni, "Due Vite," etc., pp. 251, 253.

south-west, as at present. Vasari, in his essay on Architecture, says that Brunelleschi took as his model the Church of the SS. Apostoli, which is said to have been built under Charlemagne, and to be a wonderful specimen of good architecture for the times. It is more probable that he used his classical studies in Rome, and the similarity of style with SS. Apostoli is accounted for by the affinity of that church to the Roman style of the architecture in Charlemagne's time.

The proportions of the whole church of Santo Spirito are so noble, and yet the elements so simple, that it is a masterpiece of architecture. The ground-plan is a Latin cross; the colonnades which divide the nave from the aisles are carried on round the transepts and into the tribune with a very fine and original effect.

One might personally have preferred a base beneath the columns instead of the stilted abacus above them, but no doubt Brunelleschi had his own reasons for increasing the richness of the upper portion. He has made here very small use of the pilaster. Even the four great piers which uphold the dome have their flatness relieved by the half-columns clustered around part of their height.

The dome is peculiar; it is raised on four arches with embossed circles in the spandrels. The whole design is utterly unlike that of S. Lorenzo; indeed, Brunelleschi never repeated himself. He used to say that, if he had to make 100 models of churches or other edifices, he would have made them all different one from the other. In S. Lorenzo, where the aisles are much lower than the nave, the chapels viewed from the nave have

the effect of a smaller arch set within a larger one. Here the arches of the chapels which line the aisles are of the same height as those of the nave, which gives a most spacious effect. They are carried out with Filippo's usual conformity to the general style of the building. The mouldings round the arches forming the chapels are more bold and relieved than in S. Lorenzo; the pilasters are replaced by half-columns, precisely similar to those of the nave.

D'Agincourt says that Santo Spirito shows a great advance on S. Lorenzo: "The plan is in happier proportions, the distance of the columns better understood; the half-pillars substituted for the dry and thin pilasters give a greater feeling of support. The ornamentation is more soberly distributed, and less heavy; in fact, what strikes one most on entering Santo Spirito is a certain unity and elegance, conjoined to a simple and robust character."

The spacious and noble effect of the colonnade continued round the back of the tribune is very fine. After Brunelleschi's death the work was continued by other masters, chiefly of the school of Brunelleschi's classical revival. In the sacristy Andrea Sansovino imitated the Pantheon on a small scale. Baccio d' Agnolo built the bell-tower, which, with its peculiar flying buttresses surrounding the summit, is a design more unique than artistic.

Still, the church as it stands is not quite what Brunelleschi intended it to be. According to some biographers, his plans were not very fairly followed. Manetti, speaking of him in his "Huomini Singulari," says: "He built Santo Spirito at Florence, and left the model

beautifully made; but it was spoilt in many parts after his death by presumptuous persons."

These errors are more distinctly referred to in the Gaddi Codex, where it says: "The lines of the façade which were intended to show the inner proportions were altered; the high altar was faced a different way to Brunelleschi's design. There was also an arch falsely placed, but the builders said it could not be otherwise; besides this, the pilasters and capitals, etc., of the cupola were so much raised that it threw the cupola out of its true proportions, so that the building was weakened.*

Richa† quotes the following extract from an old codex:

"I record that on Thursday, May 23, 1454, at 22 o'clock (about 6 p.m.), the first whole column was set up in the new church of Santo Spirito, the which . . . is the middle pillar next the chapel; and I was present at the work, and therefore I record it with my own hand, I Bianco, son of Ghinozzi, son of Cancellieri, son of Doffo, wool-merchant, of Via Maggio."

Fabriczy (p. 200), finding little mention of the building works between 1446 and 1456, takes this entry as a proof that the works were stopped for eight years after Brunelleschi's death. This might have been the case, though the entry taken alone would not prove it. It only proves that the walls with the half-columns and arches which form the chapels were built before the monolith columns—*colonna d' un pezzo* (all in one piece)—were placed in the nave. It may be interesting to study

* For original text, see Fabriczy, p. 443.

† "Delle Chiese," etc., tomo ix., p. 13.

Brogi photo

INTERIOR OF THE CHURCH OF SANTO SPIRITO, FLORENCE

PLATE XXIII

From a print

BRUNELLESCHI'S ORIGINAL DESIGN FOR THE FAÇADE OF THE CHURCH OF SANTO SPIRITO

PLATE XXIV

the proportions of the church as given in Fabriczy; they seem to be peculiarly harmonious in the proportion of one part to another:

	Metres.	Centimetres.
Length of nave (without the chapels at end)	88	9 (288¾ f.)
Length of transept	50	80
Width of nave	25	40
Width of transept	12	70
Depth of side-chapels	2	59

Just at the back of Via dei Servi is a solid octagonal pile of building which many people mistake for a Roman ruin. It is known as the Castellaccio, but is nothing more nor less than one of Filippo Brunelleschi's finest works which never got finished. It was to have been the Church of the Angioli, which he began for Matteo Scolari and his brother Filippo, better known as Pippo Spano; but now it encloses a mere circle of artists' studios, and a dwelling-house of peculiar plan, the rooms arranged round a circle.

The Scolari were an ancient family connected with the Buondelmonti. They came in 1135 from Val di Greve into Florence, where they took sides with the Ghibellines. Matteo, who was a great soldier, died in 1426, leaving his brothers, one of whom was Pippo Spano, the Captain of the forces to Sigismond, King of Hungary, the injunction to continue certain works begun by him, such as the monastery of S. Antonio at Tizzana, and that of the monastery of the Angioli in Florence. The Arte dei Mercanti somehow got the management of these affairs, and by some political jugglery reduced the two monasteries to one, reserving

5,000 scudi for the building expenses, and handing over the rest to Pippo Spano and his brothers.

In 1434 they obtained the site of a piece of ground near the monastery, and Filippo Brunelleschi was called as architect. His design, which Vasari calls *bizzarrissimo* (most fantastic), was decidedly unusual; the ground-plan and elevation given in D'Agincourt (Plate L., Nos. 16 and 17) show an internal octagon surrounded by eight clustered columns; behind these shafts stand massive piers, projecting from the walls, and forming arched chapels between them. The piers are so built that the external wall, instead of being octagonal, is a polygon of sixteen sides. The sides are externally divided by pilasters and surmounted by a fine cornice.

From this, a nave and atrium, with two sacristies near the front entrance, were projected, but never finished. On this polygonal building a smaller upper story — an octagonal clerestory — was to have been erected, surmounted by a dome.* The clusters of columns are tall in proportion to the low curve of the arch; they have in the design classically ornate capitals, surmounted by a plain abacus (Brunelleschi rarely made a colonnade without this addition). He had built the tribune up to the top of the pilasters, when one of the frequent wars broke out. Pippo Spano wanted his money for fighting, and the work was abandoned.

Baldinucci† says that if this church had been

* The design is not quite as new and original as it seemed to Vasari. The plan of Charlemagne's church at Aix-la-Chapelle is almost identical — an octagon, in a polygon of sixteen sides. The church at Nimeguen, and the Baptistery of Bonn are similar, and all three have the octagon clerestory.

† Moreni, "Due Vite," etc., p. 260.

Alinari photo

FAÇADE OF THE BADIA, FIESOLE

PLATE XXV

Alinari photo

SACRISTY DOORWAY, THE BADIA, FIESOLE

PLATE XXVI

finished it would have been one of the most beautiful, original, and noble works that Brunelleschi had ever designed.

Brunelleschi was unfortunate in the architectural designs he made for Cosimo Pater Patriæ, for he did not see the completion of either of them. The palace, as we shall show, was never built, Cosimo not wishing, like Luca Pitti, to offend his fellow-citizens by too great magnificence. The *badia* of Fiesole, which Vasari and tradition both tell us was designed by him, was not finished till 1467, twenty-three years after Filippo's death. The contemporary biographer makes no mention of it, so it was probably not begun in his time, and Baldinucci also passes it over in silence. Gaye ("Carteggio," etc., vol. i., p. 550) quotes an entry in the archives from the Spogli degli Strozzi which fixes the date of its commencement as A.D. 1430—"Convento e Chiesa di Fiesole, e di San Francesco al Monte si fabbricano"—so it is within the range of possibility that Brunelleschi began the building. The church of the *badia* has a venerable history; it was the ancient cathedral of Fiesole, before the present one was built in 1028, and contained the tomb of the martyr Bishop, S. Romulus. When the new cathedral was built on the hill, the Benedictines turned the old one into an abbey church, building a convent adjoining it.

In 1439 it passed into the hands of the Augustine monks, the most aristocratic of the religious orders. Cosimo de' Medici was very intimate with them, and attended the sermons of their great preacher, Don Timoteo Maffei of Verona. He thought it would further his political aims to conciliate this powerful

Order, and for this he undertook to rebuild the church and convent, add a sacristy, and enlarge the cloisters, refectory, and library—an enterprise which the inscription tells us cost him 100,000 scudi. Of the mediæval church nothing now remains but the ancient façade of Roman style, similar to that of S. Miniato, a mosaic in marble, which Brunelleschi, with his usual reverence for the antique, left intact, sacrificing any idea of a façade of his own, and merely leaving the brickwork of his enlargements like a frame around it (Plate XXV.). The church has several marks of his design in the general form, though the details point to a later time. The plan is strong and decided—few lines, but those pure and firm. It is in the form of a Latin cross, with deep transepts and a nave of four large arches. The chapels in the nave are so deep as to form a series of chambers with architectural façades; they are divided from each other by fluted Corinthian pilasters, supporting an architrave; but the pediments above are broken, in the affected style introduced by Michelozzi, a falsity which Brunelleschi would never have countenanced. There is over the centre of the cross a four-sided cupola slightly arched, supported on massive piers of fluted Corinthian style.

The doors to the sacristies are very handsome, and suggest Brunelleschi's own design. As he loved a high abacus over the capital of his columns, so here he has placed a stilted architrave—in fact, a double one between the door and the pediment (Plate XXVI.). The Renaissance decorations of this are of clean-cut, decided lines. The roof is waggon vaulted.

The parts which most suggest Brunelleschi's hand

Alinari photo

CLOISTER OF THE BADIA, FIESOLE

PLATE XXVII

Alinari photo

CAPITAL OF A COLUMN IN THE EXTERNAL LOGGIA OF THE BADIA, FIESOLE

PLATE XXVIII

Alinari photo

CAPITAL FROM THE CLOISTER OF THE BADIA, FIESOLE

PLATE XXIX

are the cloisters and the outer *loggia*, which are both perfectly charming. The cloister is a two-storied arcade of five arches on two sides, and seven on the other two (Plate XXVII.). The capitals of the slight and elegant columns are of peculiar design. They are fluted capitals, with acanthus leaves springing from above the Ionic volutes at the corners, and curving gracefully downwards. The outer *loggia*, which has also two colonnades one over the other, and commands a glorious view of Florence and Val d' Arno, is a dream of architectural beauty (Plate XXVIII.). The lower row of composite columns of varied design, from which the arches spring direct, is light and graceful; the upper row of pillars supports the ancient roof-beam, and each pillar is surmounted by a boldly carved wooden bracket spreading on each side to support the beam. The effect is rich in the extreme (Plate XXIX.).

The refectory is a fine square room with groined roof, and a pulpit carved in white marble, which is said to have been designed by Brunelleschi. It projects from the wall, and is surrounded by cherubs and wreaths of foliage in correct Renaissance style; the pointed base is sculptured down to the very point in lentil scrolls and wreaths of bay and acanthus. The style would seem rather later than Brunelleschi, and it may have been by Desiderio di Settignano, who sculptured the *lavabo* in the adjoining anteroom.

As a historical building the *badia* is very interesting. Lorenzo il Magnifico sometimes held his Plato Academy here. Giovanni, afterwards Leo X., took the purple here as Cardinal; and his brother Giuliano, Duke of Nemours, died in the convent. In later days Father

Inghirami established here his printing-press, in which the first good map of Tuscany was printed.

The *badia* is now a college for boys. The Spanish army greatly damaged it in 1529, and two or three subsequent restorations (?) have rendered it still more difficult to decide Brunelleschi's share in the building.

CHAPTER XI

BRUNELLESCHI AS A PALACE-BUILDER

In domestic architecture, as distinctly as in his churches, Brunelleschi led the way to the new style. The Barbadori and the Pazzi families, for whom he had built chapels, employed him to design their houses, and ere long the merchant princes, like Cosimo de' Medici and Luca Pitti, followed their example.

In some designs he kept to the traditional marks of the old Florentine fortress palace, only giving a new touch and added beauty to antique forms; in others he boldly went to the classical style, and did away entirely with the double-arched Lombard window and the pillared cortile. In either case his three great works—the Pitti, the Pazzi, and the Barbadori palaces—may be looked on as links between the older and heavier Tuscan forms, and the elegant architecture of the sei-cento style.

One of the best specimens of the Tuscan form is the Palazzo Busini, afterwards Quaratesi, on Piazza Ognissanti (Plate XXX.). This is, I think, the only one in which Brunelleschi has kept up the ancient mark of

From a print by Zocchi

PALAZZO BUSINI, NOW QUARATESI, FLORENCE, AS IT WAS IN THE SEVENTEENTH CENTURY

PLATE XXX

nobility—the *sporti—i.e.*, the upper story projecting on brackets. In the Middle Ages only families of noble rank were allowed *sporti*. As Brunelleschi heralded in the new architecture, he claims also the last instance of the old, for I remember no later palace built with *sporti*. He added a grace to it, however, by the decorations in *sgraffito*,* which gave a touch of art to the whole, and were done by Andrea Feltrini, pupil of Cosimo Rosselli. We have given our illustration from Zocchi's book, as being more nearly the form Brunelleschi gave it than the plate-glass innovation of the art-shop there at present; but the upper windows had even at that time already been altered. We must do the present possessor, Sig. Pisani, the justice to admit that except for the plate-glass in the basement, and the Persian blinds above, he has now made a very fair restoration of the house. The *sgraffiti* are copied from the remains of Andrea Feltrini's own, and seem to prove that Brunelleschi in part suggested the design. They imitate Corinthian pilasters between each of the arched windows, and a decorative frieze above them, along the whole front. The small arches formed by the brackets on the side towards the street are adorned with very classic scrolls, and filled beneath with a box and rose pattern that suggests the ceiling of the arch of Titus.

The interior of the house—also restored on the old

* *Sgraffito*, or scratch-work, was one of the chief forms of external house decoration in the fifteenth century. A black layer of plaster had a white layer superimposed; the design, usually very artistic and elegant, was drawn on the white, and the ground-work scratched off, so as to leave the design in white on a black ground.

lines—gives a better example of Brunelleschi's idea of a palace-house than any of his others which have been more changed. The entrance-hall, with its vaulted roof, is flanked by pilasters, in the form of Corinthian half-columns; the doors and internal windows have moulded borders. The staircase is of similar construction to those of the Pazzi and Barbadori houses—*i.e.*, a succession of sloping but lofty tunnels, each finished with a moulded arch, and lighted from windows on the landings between each flight. On the first landing a fine column finishes the dividing wall between the two flights of steps, and supports the central arch of the vaulting. The smaller half-vaults rest on carved brackets of the same classic style, and the side-walls are panelled in stone.

The rooms, which are many and large, are disposed in a continuous suite, round three sides of a square, and are of the most noble and satisfying proportions. One or two were in the sixteenth century ceiled and frescoed by Poccetti; but most of them are left with the old Brunelleschi timbered roofs, whose beams and cross-beams are painted and diapered in colour. The tall arched windows placed rather high have each a convenient daïs of fanciful semicircular design, the upper step curved inwards in the centre, the under outwards. Brunelleschi was always practical, and in all his palaces he thought of the comfort of the Florentine maidens, who liked to look out from their windows on the world below.

The Barbadori window platforms are wide and spacious and square in form; but whatever shape he made them, he kept a complete harmony in the whole

Brogi photo *Near Florence*

THE VILLA REALE DELLA PETRAJA

PLATE XXXI

design, never mixing his forms or spoiling the *insieme* of his design by confused details. The tall arched windows are now filled with plate-glass, but originally they would have been double-light windows like those of the Pazzi and Pitti palaces.

One of the first works of house architecture mentioned by Manetti and Baldinucci* was either the restoration or rebuilding of the tower of the villa at Petraja, now one of the royal villas (Plate XXXI.). This is peculiarly interesting, for Petraja was, or had been, one of the hereditary possessions of the Brunelleschi family. We gather this from an interesting story about some valorous relatives of Lippo Brunelleschi in Ammannati,† which is quoted by Baldinucci.

In those days, A.D. 1364, the family were the possessors of the villa at Petraja, now the Royal Villa. Some enemies of their faction, wishing to take the villa by force, persuaded the English and German mercenaries then in Florence to besiege it. The sons of Boccaccio Brunelleschi defended it with such spirit that in the first assault the English, in spite of scaling-ladders and *balestre*, were repulsed with great loss. The German troops next assaulted it ferociously, with the same results. Then the two forces joined and made a third assault, which, to the glory of the Brunelleschi, was equally repulsed. Ammannati believes that the present tower of this villa is the same turret from which these brave Brunelleschi fought, and that the authors who assert that Filippo was the architect have confused his name with that of the possessors, though he agrees that it

* Moreni, "Due Vite," pp. 168, 169, and 295.

† Ammannati, "Storia Fiorentina," lib. xii., p. 639.

might have been restored by him later. The villa itself has been rebuilt by the Medicean Dukes, but the old tower was left untouched.

We now come to our architect's masterpiece of domestic architecture—the Palazzo Quaratesi or Pazzi.

Many years before the Pazzi conspiracy was hatched, Andrea Pazzi had caused Brunelleschi to make him a plan for a new palace at the corner of Via del Proconsolo and Borgo degli Albizzi.* On Andrea's death in 1446 his son Jacopo continued the building. It is believed that Brunelleschi began it; but he died almost at the same time as Messer Andrea Pazzi, and it was finished, and probably enlarged, by Giuliano da Majano from Filippo's plans, while keeping up the same style (Plate XXXII.). Jodoco del Badia† quotes Politian's words to this effect. Writing of Jacopo dei Pazzi, he says, "Domum paternam magnifice extructam a fundamentis diruit; novam exaedificare adgressus est." The books of the Catasta prove that in 1462 Jacopo had bought another house next to his in Via del Proconsolo, which was incorporated with the new building. This would be the portion occupied by the last window in Via del Proconsolo; but, from the completeness and

* In the "Portata al Catasto" di Jacopo Pazzi, 1446 (Quartiere S. Giovanni, Confalone Chiavi, t. 682, p. 908), it is described in quaint Italian as "a house with its appurtenances in which Messer Andrea lived, and in which I live at present with my family, situated at the Canto dei Pazzi, in the parish of San Broccolo . . . (*sic*)" [St. Proculus]. Here follow its boundaries. "It formerly had a shop underneath it, but in 1432 this was made into a ground-floor apartment as you see at present"—*i.e.*, 1446. See Fabriczy, p. 327, note.

† "Raccolta delle Migliori Fabbriche antiche e moderne di Firenze," part i., p. 8.

Alinari photo

PALAZZO PAZZI, NOW QUARATESI, FLORENCE

PLATE XXXII

Brogi photo

WINDOW IN THE PALAZZO PAZZI, FLORENCE

PLATE XXXIII

Brogi photo

THE CORTILE, PALAZZO PAZZI, FLORENCE

PLATE XXXIV

symmetry of the design of this façade, the plan must have been originally made to include this portion; there is no sign of an afterthought. Probably Messer Jacopo had the intention of purchasing that house long before he was able to fulfil it.

In this Brunelleschi followed out the Tuscan style rather than the classic, which he had not yet begun to use for private houses. It is one of the most beautiful of its kind. The upper stories are light and elegant, and make a beautiful contrast to the solid rustic masonry of the base. The cornices are rich and effective. Brunelleschi has given his own style to the Lombard double-arched windows (Plate XXXIII.). Instead of the low, squat, arched orifice, with its solid blocks of stone, he has a taller and more graceful simple arch, enriched with artistic mouldings. In place of the two short arches of olden times, Brunelleschi has filled his ornate window openings with a taller central pillar and a graceful sculpture in the spandrel.

The cortile—that important part of a Tuscan palace—is very elegant; it has on three sides of it arcades (now partly built in) on pillars with composite capitals (Plate XXXIV.). The capitals, too, are a tribute to the older schools, having quite a Lombard touch in their fanciful foliage and volutes, with which the Pazzi arms are intermingled. The dolphins are cleverly utilized as the drooping corner volutes, and in the spandrels of the arches are circular niches surrounded by the same garlands of poppies or stones as those between the window arches. The crescent-shaped sail is beneath them. It would be interesting to know whether Brunelleschi drew the designs for his varied capitals,

or whether he followed the old usages of the guild, leaving the minor sculptural details to the masters of the Opera whom he employed for the different parts.

As in all Brunelleschi's designs, the arches of both doors and windows in this palace are of proportions particularly harmonious. The inner arch of the door is 16 feet 11 inches high, the width being as nearly as possible half the height. The central arches of the cortile are in height two and a quarter times their width, while the height of the windows is one and a third that of their width. The ornamentation of the whole building is beautiful. The arches of the windows, which are 9 feet high, have sculptured scrolls of branches and berries forming a rich course between the mouldings; the capitals of the colonnettes which divide the two lights are ornate, and in the spandrels are large roses, surrounded by an ornate circlet, formed of poppy-heads bound together by a band. This is in allusion to the Bartolini-Salimbene, whose palace was on the site before Jacopo Pazzi built the present one.* Three other figures surround the wreath; at a distance they look like crescents, and suggest the arms of the older branch of the Pazzi family, eight half-moons arranged in a certain figure. They are, however, sails swelling in a wind; the cross-bar and cordage being quite distinguishable. They represent

* The emblematic badge of the Bartolini family was the poppy, with the contradictory motto, "Per non dormire." Both poppies and motto may be seen in the sculptured decorations of the Bartolini palace, now Hôtel du Nord, on Piazza Santa Trinità. There is, however, a diversity of opinion as to these wreaths. Some say they represent not poppies, but the fire-stones brought from Jerusalem by the ancestor of the Pazzi who fought in the Crusades.

THE PALAZZO PITTI, FLORENCE (AS ALTERED BY THE GRAND-DUKES) *Brogi photo*

(Begun 1440; modified 1620-82)

PLATE XXXV

the sail of fortune, and were an emblem much used by merchant-princes of Florence in the fourteenth and fifteenth centuries. The Rucellai palace in the Vigna Nuova has a whole frieze formed of these sails.*

Donatello has set his seal to his friend's work in a little Madonna in a shrine on the corner of the basement.

A building of another stamp which Florence owes in part to Brunelleschi is the mighty pile of the Pitti palace (Plate XXXV.). The commission for the design was given by Luca Pitti, in 1440, when Brunelleschi was sixty-three years of age. At that time the Pitti family had risen to great eminence in the city, and Luca—who had been Gonfaloniere, and was a great friend of Cosimo Pater Patriæ, who knighted him—wished to build a palace which should eclipse all others.

Vasari's story that Luca Pitti taunted Filippo Strozzi with the boast that his palace would be big enough to contain the Strozzi one in its courtyard was, of course, although literally fulfilled, a mere invention. The Strozzi palace was not begun till nearly fifty years after the Pitti.

Luca's other boast to Cosimo dei Medici, that "his

* Dr. Warburg, a member of the Kunsthistorisches Institut, has made a study of these heraldic emblems, and finds an interpretation of the sail of fortune in an old print in the Bandelli collection at the Uffizi. It represents a ship with a maiden in the prow, and a youth holding up the sail—precisely the group that forms the upper part of the Rucellai heraldic shield. The motto is, "I mi laso portare alla fortuna sperando alfin daver buona ventura." Dr. Warburg thinks that the sails on the Pazzi palace indicate some matrimonial relationship with the Rucellai family. The present Pazzi arms are on a shield at the corner of the house, and consist of two dolphins erect with five crosses of the field.

windows should be larger than Cosimo's great doorway," is much more probable, for Brunelleschi, whose plan for the Medici house had been rejected on account of its extreme size and grandeur, would have had a pleasure in outvying his rival Michelozzo. To build his palace, Luca Pitti purchased from a certain Monna Bandecca a house and vineyard, which had belonged to her brother, Roberto di' Rossi.* It was near a piece of ground called Bogoli, now the Boboli gardens, and he gave 450 florins for it.† Brunelleschi made the plan, and Luca Fancelli is said by Vasari to have undertaken the surveillance of the work. This seems a little impossible, unless the work were begun many years after Brunelleschi's death. Luca Fancelli, was born in 1430,‡ and would have been only ten years old at this time. His father was Jacopo di Bartolommeo di Settignano. Luca was at Mantua more than thirty years, in the service of Duke Francesco Gonzaga, and after that he was employed at Milan and Venice. It was not till 1491 that he returned to Florence, and became head-architect of the Duomo, in place of Giuliano di Majano. He died in 1494.

As in another place Vasari calls Fancelli Silvestro, and not Luca, I can only imagine that there were two Fancelli in Florence, and that the elder one worked under Brunelleschi.

It is, however, almost certain that the first plan was

* The Rossi were a large and powerful family who owned many houses on the further side of the Ponte Vecchio.

† "Cronaca di Buonaccorso Pitti." Firenze, Manni, 1720.

‡ See note to "Life of Leon Battista Alberti" in Milanesi's Vasari.

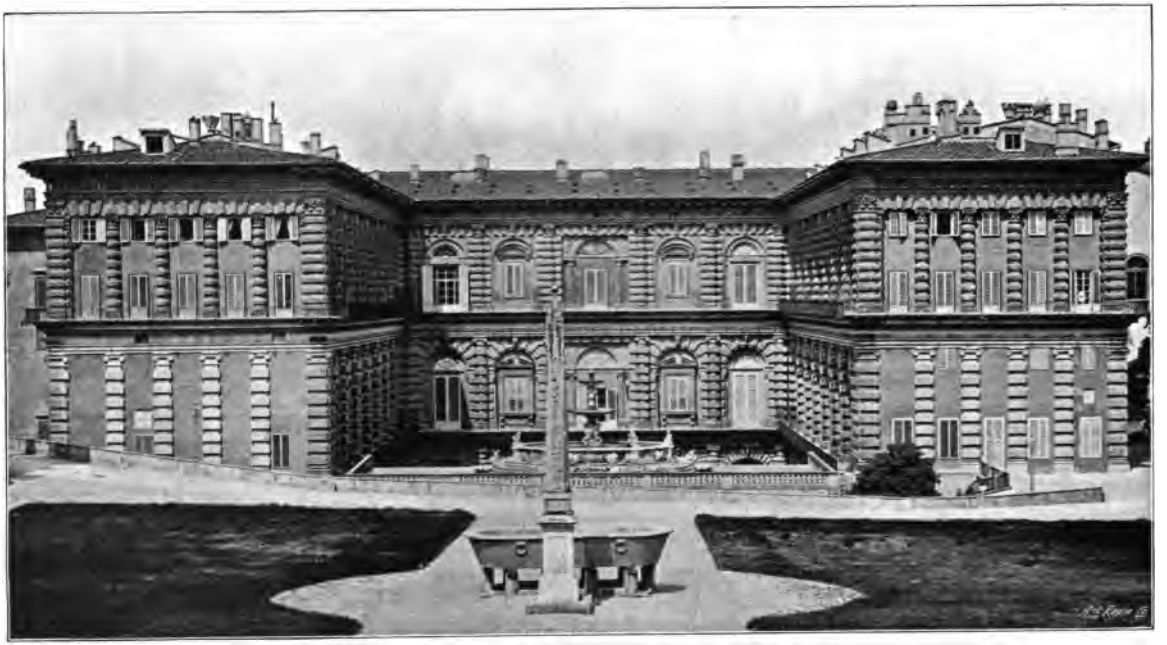
Brunelleschi's. It was a costly work for Luca Pitti; not only had he to give indemnities to several families whose houses were bought to enlarge the site, but to bribe people to supply him with materials and labourers. The Florentines, who resented pretension, declared that Luca was ruining himself with his great house. To put a stop to these envious stories, Messer Pitti invited a hundred of the principal citizens to a banquet, and placed each of them to sit at table on a sack of scudi.

Before the death of Filippo, the walls were built to the second story, and his design was already visible. In his frontage he satisfied his employer's love of the magnificent by a gigantic simplicity of line and grand solidity of structure. It has been styled Doric by many writers, but, except that its massive masonry recalls the Doric of remote ages before the Greeks had refined it, the term hardly applies. There is, in fact, nothing classical in the frontage even now, except the Renaissance pediments of the basement windows, which were interpolated in Brunelleschi's solid arches by a later architect, and are a little incongruous to the general design. The upper stories now display a long succession of arched windows, hideously filled in with bricks and squares of glass; above the cornices of simple moulding run three long lines of balcony, with a balustrade of small columns. In the building as it stands now, there is a great want of balance. The immense length, in proportion to its height, has disastrously exaggerated the horizontal lines.

But this is not at all due to Filippo Brunelleschi, whose original design was compact and well proportioned. His façade consisted of seven large arched

windows, on each of the upper floors, with the balustrades and masonry as at present. Beneath the roof was an open pillared loggia.

His arched windows, however, were intended to be filled with smaller double arches as in the Palazzo Pazzi. His basement consisted of three gigantic doorways, and four small barred windows, which were all that were possible for purposes of safety in those disturbed times. The great cortile, the largest in Florence, with its terrace on one side, was Brunelleschi's, though Ammannati added something even to this. The credit of discovering just the part Brunelleschi had in this palace—viz., the three central arches of the basement and the seven windows above them—is due to Professor Cosimo Conti, who proves his assertion from an ancient plan in the Uffizi; and from two pictures—one an altar-piece by Alessandro Allori, in the Church of Santo Spirito, and another the portrait of a lady, probably one of the Pitti family, in which the palace forms the background, as seen through an open window. This portrait was at one time in the passage leading from the Uffizi to the Pitti. Being led by these pictures to enquire into the subject, Professor Conti found that the architecture of the palace itself confirmed his view. The masonry of the small square openings on the two outer ends of the basement is different from that of Brunelleschi's four little windows, where the architrave is in three bosses, while the others on each side are plain slabs of stone. Again, the iron torch-holders in the central part are differently worked from the others; these have on the torch-ring a shield wavy—the arms of the Pitti—while the side ones have a different device.



Brogi photo

REAR-VIEW OF THE PALAZZO PITTI, FLORENCE

PLATE XXXVI

Further researches in the interior of the palace entirely confirmed Professor Conti's theory, especially his assertion that the three great arches in the basement were originally all doors, and not filled in with windows as at present. The rooms between the doors had arched vaulting; the two rooms which have been closed in by bricking up the doorways have waggon vaulted roofs, like that of the principal entrance, and the iron staples for the hinges of the doors are still visible.*

Anyone who wished to know what the Pitti palace was as designed by Brunelleschi can form a good idea by looking at the Palazzo Strozzino at the back of the great Strozzi palace, in which Michelozzi appears to have been greatly influenced by Brunelleschi.

The garden front shows greater diversity (Plate XXXVI.). Two wings are thrown out on each side, forming the central court, a wide pillared balcony joins them, and an elegant fountain rises in the midst. The architecture is of the same massive style as the front, the windows being divided by alternate half-columns, the capitals of which are Doric in the basement, Ionic on the first floor, and Corinthian on the second. The columns and pilasters are seemingly formed of alternate larger and smaller blocks of stone, which give them a rugged ribbed appearance. There is a very interesting view of the garden front of Palazzo Pitti on a goblet of glass, once belonging to the Pitti Palace, now in the possession of the writer, which was engraved by Jacques Callot, the French engraver (born 1593, died 1636), who was for some time at the Court of Cosimo II.

* See a pamphlet, "Il Palazzo Pitti," by Professor Cosimo Conti, who read it at a meeting of the Colombaria Society in March, 1887.

An ancient label in the case records that it was commissioned by the Duke Piero (Nothus), grandson of Cosimo II., whose well-known dwarf is seen standing on the terrace. It gives the centre of the palace, but not the wings, and includes the first terrace and fountain, but not the second higher one, which must have been a later addition. The two wings with terraces on the front facing the Piazza Pitti were added later from Ammannati's designs. It is said that Brunelleschi's plans were lost by that time, but this is not confirmed. In the face of so much superimposed work, we dare not echo Burckhardt's apostrophe: "So stands Brunelleschi's creation, the grand primitive example of a Florentine Renaissance palace, as a mighty house which impresses little and great alike."

Notwithstanding Luca Pitti's display of gold, the hundred sacks all collapsed before the work was finished. Duke Cosimo afterwards purchased the palace for his Spanish wife, Eleonora of Toledo, for whom the gardens of Boboli were enlarged and decorated, all the sculptors of Cosimo's time being called in to provide fountains and statues. The one in the court of the garden front, shown in our illustration, was the work of Ammannati. In the interior the design is grand and spacious. The large halls and chambers are all vaulted and frescoed. The doorways are sculptured in pure Seravezza marble.

This palace was not the only commission which Brunelleschi received from Luca Pitti. He designed his villa at Rusciano, as well as his city palace. This noble villa stands on an elevation outside the San Niccolò gate, and its fine pleasure-grounds extend over

the whole eminence.* Villa Pitti was a much earlier work than the palace, and is utterly different in style, being of very irregular form, full of wings and "loggie" and projections. Centuries of alterations and repairs have so masked the original plan that it is quite impossible to say how much of Brunelleschi's design is now recognisable. The older windows, of which there are one or two left, show that he used the fourteenth-century form, with the projecting eaves on brackets above, and the bracket-supported *mensola* below. There is a fine courtyard with columns and arches, and a peculiarly light and airy colonnade as a porch over the door. The peculiarity of this is, that the door is not in the centre of it, but on one side, so that when a carriage stands in front of the door for people to enter it, the horses are well protected. It is just such a bit of practicality as Brunelleschi would have delighted in, but it is most probably a quite modern addition.

Luca Pitti must have had the idea of building this villa as early as 1427, when the Portata al Catasto (tax record) for the Quartiere Santo Spirito notes that Luca Pitti is taxed on a vineyard with a house and peasant dwellings, in a place called Rusciano, in the parish of San Miniato, which property he had bought from Pier Antonio di Venanzo di Camerino, together with a house then used as a tavern. The same property is taxed in 1433 and 1457, and, of course, during the intermediate years. The Pitti family did not long enjoy their villa, for when the crash came in 1480, and their property had to be sold, we find it all detailed as

* It is now in the possession of Baron Stumm. H.I.H. the Empress Frederick of Prussia stayed there when in Florence.

beni alienati (alienated property) by the sons of Luca, who sold it to the Count of Urbino.

The same family Barbadori, for whom Filippo built the chapel in Santa Felicità, afterwards employed him to build their house in Borgo San Jacopo. This palace stands on the left entering from the Ponte Vecchio. It was a difficult design to make, owing to the curve of the street at that point, but Brunelleschi succeeded so well that the slight outward bend of the walls appears only to add to the effect. There was so much difficulty and arbitration in arranging with others, who had poor-looking buildings on the site, that the Barbadori palace was for many years left unfinished. Manetti says that the owner failed and lost his patrimony. In this building Brunelleschi quite left the old Florentine style which he modified in Palazzo Pazzi, and boldly adopted the Roman revival; the windows instead of the old bracket and *mensola*, or the double arch, are square, and have the triangular pediment. He also omitted the pillared cortile, which is such a mark of the Tuscan palace, and was content with a mere yard for purposes of light to the upper internal windows.

CHAPTER XII

BRUNELLESCHI AS A MILITARY ENGINEER

BRUNELLESCHI'S science had nothing narrow about it; as far as the art of building could go, he was past-master of it in every branch. We have seen him lead-

ing his own and future ages in ecclesiastical and civil architecture; we shall now see him following the ancients in military architecture. Here, instead of being a pioneer, we might almost look on him as the last of the fortress-builders, for, besides the Fortezza at Florence, built by San Gallo for Cosimo, and the fortification of Leghorn by Sir Robert Dudley, very few great fortresses were erected in Tuscany after this era.

In the fifteenth century Pisa was in the possession of Florence, and it was thought necessary to strengthen its fortifications. Brunelleschi was called to Pisa first on August 16, 1426, by the six *ufficiali del mare* (officers of the marine), to consult as to the best method of fortifying the city. The subject had been mooted in the civic councils on May 29, 1425, when a vote was passed "pro reparatione frontis ad mare civitatis Pisarum qui dicitur el ponte a mare."*

It was decided to erect towers on each side of the bridge over the Arno, nearest the sea. This bridge had been built in 1331, and now, a century later, threatened collapse. Brunelleschi strengthened the pilasters from which the five arches spring. One of these arches is much larger than the others, for the convenience of the galleys and vessels which had to pass out to sea through it. Morrona† thinks that there was originally a drawbridge over this part of the bridge. Filippo's towers are said to have been very well adapted to the defences required in those times, and furnished with many ingenious devices. They are now no longer

* Gaye, "Carteggio," etc., vol. i., p. 545.

† "Pisa Illustrata," vol. iii., p. 358.

entire, being partly demolished, and partly built into houses. The old Guelph Tower, as it is called, with its gallery on brackets, forming a cornice beneath the battlements in good old mediæval fashion, is probably no part of his work, as it is in a style long before his time.

On September 12 of this same year 1426, Filippo and the chief master Battista were desired to fix the price of wages for the builders who were to work at the Castle of Lastra. This fort stood above Signa, and guarded the valley of the Arno. Besides the castle at Lastra, a little village near it, named Malmantile, was turned into a fortress by being strongly walled all round. It still exists, and is, in these days, a unique instance of a walled village. These works of fortification were begun in 1424, when, on September 26, the Opera del Duomo decided to provide for the expense of them* (Plate XLI.).

This same year the Meat Office (*Offitialium Carnium*) obtained leave from the Opera of the Duomo for Brunelleschi to leave Florence on some business for them. Its precise nature is not specified beyond the words *facto carnesprivio*, but he was absent on account of it for four days in September, 1426, and ten days in the February following.†

In June, 1435, he again went to Pisa, to begin the fortification above the Porta del Parlascio, but it is not clear how much he did here. It does not appear that he rebuilt the gateway, which was a very ancient one, but only restored and fortified it.

* See Gaye, "Carteggio," etc., vol. i., p. 550.

† Guasti, "La Cupola," p. 51.

Private photos

1. GATEWAY AT LASTRA
2. PART OF FORTRESS AT MALMANTILE

PLATE XLI

One of Filippo's Pisan fortifications was that of Vico Pisano, a town which had been a frontier of Pisa, and twice repulsed Castruccio Castracane, in 1323 and 1327. The Florentines took it in July, 1406, after a siege of some months, and in due time Brunelleschi was employed by the Commune to restore the fortress and build a wall round the town. Mons. Giovio (Hist., lib. iii., p. 57) describes Vico as standing on a rugged peninsula formed by a curve of the Arno, above an immense green plain, which was used for equestrian combats, and says a fine square tower stands in front of the town, from which a wall of many bastions and ramparts entirely encircles it. From the Spogli Strozzi (serie ii., t. 78), under date 1435, we find the following entry: "The *operai* of Santa Maria del Fiore are to go to Vico Pisano to see, order, and fix where the fortress should be placed;" and Gaye (vol. i., p. 553) quotes from the books of the *provveditore* that "five citizens are deputed to have the citadel built at Vico Pisano." This is dated July 29, 1435. Of course Brunelleschi was at the head of them all. The works must have continued some years, for another entry quoted by Fabriczy, from the Spogli Strozzi, records under the date 1440, which Fabriczy (p. 380, note) thinks a false date, "that Filippo di Ser Brunelleschi is ordered to go to Vico Pisano to inspect a certain wall in the fortress which is ruined, and to provide for the necessary repairs (Plate XL.).

Brunelleschi's visit to Lucca was less redundant to his glory. The Florentines were at the time at war with Lucca, and the Council of Ten, not being able to take the city by arms, formed a wild project to flood it, by letting in the water of the Serchio on it. Brunel-

leschi, who always had a scheme for every great work proposed, formed a plan for doing this which he said could not fail. The Dieci di Balia on March 2, 14$\frac{2}{3}\frac{9}{0}$, wrote to Rinaldo degli Albizzi that they "sent Pippo di Ser Brunellesco to inspect the walls of Lucca, and execute a certain idea and design he had formed, and which they thought would assist the emprise, and redound to the favour of the commune." They enjoin on the General to treat him with honour as a most singular and capable man. A letter from Rinaldo degli Albizzi shows how he followed this injunction; he says: "Pippo di Ser Brunellesco has been here and has made his design. This morning he breakfasted with me, and then went back there"—*i.e.*, to Florence. On his return to Lucca, he was accompanied by other master builders, and a company of *guastatori* (sappers and miners) was placed at his disposal.

The Lucchesi, under their leader Paolo Guinigi, Lord of Lucca, anxiously watched the engineering works of the besiegers in the plain, and the growth of the canals which were rapidly nearing the city, and were destined to bring the great flood of the Serchio pouring in at their gates. Paolo Guinigi, however, was a man of resources. He said that many towns were belted with moats of water, and were only the more strong for it; their walls and ramparts were high and strong—the only danger lay in the situation of Porta Ponzano, and this must be so defended that the Florentines could not work there. He sent numbers of peasants out at night with orders to secretly dig a great number of trenches, as deep as a man's height, and large enough to hold two archers in each. This was promptly done and the trenches were manned,

Private photos

FORTIFICATIONS OF VICO PISANO

PLATE XL

so that when the Florentines came within bowshot they were amazed at a flight of arrows rising apparently from the earth. These invisible foes effectually stopped the engineering works, and when, instead of flooding Lucca, the Serchio overflowed into the camp of the besiegers, the Florentines withdrew ignominiously. Ammirato, t. ii., part i., p. 1061, says: "It was necessary to raise the camp, to the great mortification of those who had proposed the scheme, especially of Brunelleschi, against whom the Florentines, forgetting that they had before lauded him to the skies, made a satirical song, ridiculing his foolish artifice. Even the children sang it in the streets, and it so outweighed his former glory that his very soul was embittered." This disastrous enterprise was shared by Michelozzi and Donatello.

The "Deliberations of the Ten of War" have entries dated April 29, 1430, and June 14, 1430, recording payments to all these three for their engineering work in the camp against Lucca. In April Michelozzi received 33 florins, and Brunelleschi 60; in June Brunelleschi 210, and Michelozzi and Donatello 20 florins.*

Muratori, not mentioning the archers, only says† that Paolo Guinigi had his trenches so dug that, instead of sending the Serchio into Lucca, it flowed into the Florentine camp and flooded it. This turning of the tables on the Florentines would far better account for their mortification and the ridicule heaped on poor Filippo than a few arrows which they might have retaliated.

* For full account see Gaye, "Carteggio," etc., vol. i., pp. 25, 26.

† "Annali d' Italia," tome ix., p. 139.

In 1431 we find our architect building other fortifications at Staggia in the Romagna, and at Rencine in the valley of Chianti. Gaye (p. 551) records the deliberation of the Opera of S. Maria del Fiore to "fortify and build castles, forts, and walls at Staggia and Rencine." The "Spogli Strozzi," vol. xx., fol. 70, 1431, quoted by Fabriczy, p. 359, provides us with the name of the architect. "Filippo di Ser Brunellesco with a companion and two horses is to go to the castles of Rencine and Staggia and arrange about the fortifications of those places." All these old fortresses are more or less ruinous and defaced now. Most of them are turned into dwelling-houses for the poor. The castle at Staggia is perhaps the best preserved.

On April 2, 1432, Filippo was accorded leave for one month and fifteen days to go to Mantua and to Ferrara to execute some commissions for the Princes of both places. But the Opera strongly expressed its need for Filippo's return at the end of that time. In April, 1436, he again made the same round, but was only allowed twenty days for both cities. I can find no account of the work he did at these visits for either Prince, but it is supposed to have been something connected with the fortifications. His touch seems especially visible in the part of Castel S. Giorgio with the pilasters (Plate XXXIX.). Baldinucci* speaks of a later call to Mantua in 1445. He records that when the first marble of the lantern of the Florentine Cathedral was blessed by the Archbishop, the Marchese Ludovico Gonzaga, who was present, made urgent appeal to the Signoria that Brunelleschi might be spared

* Moreni, "Due Vite," p. 278.

Premi photo

THE CASTELLO SAN GIORGIO, MANTUA

PLATE XXXIX

to go to him, to make models of some buildings and to provide some remedy against the overflowing of the river Po. In all these things Filippo satisfied the Marquis so well that he overwhelmed the great architect with favours before he allowed him to leave Mantua. Possibly the remarkable moats which surround Mantua were part of his work.

In regard to his visits to Milan the case is the opposite. We have a more distinct mention by his biographers, but no direct confirmation in the archives. The first visit was when the loggia of the Florentine Foundling Hospital was already in progress, and on leaving Florence he placed the superintendence of that colonnade in the care of Francesco della Luna, his pupil. This is indirectly confirmed by the books of the Foundling Hospital in the State Archives, where della Luna is chronicled as *operaio* for the year 1427.

The second visit, which Baldinucci says took place in 1434, is also confirmed in the same books by della Luna being again in authority as master-builder in that year. On his first visit to Milan, Brunelleschi made the design of a fortress for Duke Filippo Maria Visconti. This design was probably only for the rebuilding of a portion of the fortifications originally begun under Galeazzo II. in 1358 and 1368. During the century following that date the Visconti family experienced many vicissitudes, and either the fortress remained unfinished or had fallen into disuse and partial ruin.

It is said that Filippo Maria lived the life of a recluse in that building for thirty years; if so, it could not have been in the part that Brunelleschi built, for Duke Filippo Maria died in 1437. It appears that he had during his

seclusion studied architecture and was much influenced by the spirit of the Renaissance. This would account for his calling in Brunelleschi—the daring architect who was throwing off the bonds of tradition and boldly introducing new styles—rather than the Venetian or Milanese masters who were then crowding the works at the Certosa of Pavia and Milan Cathedral. In any case the Duke was satisfied with his architect, and made every effort to keep him in his service, saying that "Brunelleschi was a better defence for a city than any walls could be" (Plate XXXVII.). He said also that "Florence was worthy to be the home of such a genius, and that Filippo Brunelleschi was worthy to adorn such a city." The second visit was no doubt to inspect the building of this fortress, and Baldinucci affirms that he was also called in as an expert to give advice on some point of the Milan Cathedral.*

It is thought† that the parts Brunelleschi designed were the Castello and Rocchetta, which stand on the right and left of the gate on entering the city.

The Castello, one of the four fortified towers, is a square pile of solid but habitable construction, and in the centre is a large open courtyard (Plate XXXVIII.). This tower must have been finished by 1435, when, after their defeat at Gaeta by the Genoese and the Visconti, two Kings, Alfonso of Aragon and Giovanni of Navarre, with several other Princes, were prisoners

* He was not the only Florentine who was called into council by the Milan builders. Luca Fancelli, who was in 1490 working at Modena, was, with Maestro Francesco di Giorgio of Siena, invited to examine and give his vote on a model for the cupola of Milan Cathedral.

† See "Archivio Storico Lombardo," tome xi., p. 435, article on "Il Castello di Milano."

Ferrario photo

THE CASTELLO, MILAN

PLATE XXXVII

of honour in the Keep, which was specially decorated for their reception. This regal magnificence soon quite vanished; the interior was within a few years an utter ruin; for when Filippo Maria died in 1437 the Count Saratico gave over the castle to the "Defenders of Liberty" (Difensori della Libertà), and as soon as the Duke was buried the populace sacked and ruined the whole place. The adjoining Rocchetta, or "little fort," contained the dwelling-house of the Visconti family, and it is here that the touch of Brunelleschi is especially evident. It is on the exterior a picturesque and grand crenellated mass of building, but the inner side of the palace, which is towards the courtyard, is of quite a different style.

Its entrance is beneath an arched and pillared loggia, whose arches are flanked with pilasters, similar to the ones in the Guelph Palace at Florence. The capitals of both columns and pilasters, though of the Corinthian order, have in their details many heraldic signs of the Visconti family. Brunelleschi had learned from the older masters to make his capitals eloquent and suggestive.

The rich mouldings which form a string course beneath the cornice that crowns the basement show Brunelleschi's hand, as do the windows, which in the basement are still arched, and probably were so above, but they have been inartistically modernized. The arched windows of the exterior, with their fine moulding and base supported on brackets, still remain to show the original design. After the sack of the castle in 1437, Francesco Sforza, who married Bianca Maria, daughter of Duke Filippo Maria Visconti, set to work to restore

the whole fortress. He employed the masters of the Venetian Lodge, and we find the familiar names of Filarete, Solari, Marco Leone, etc., among the architects; so, as usual, Brunelleschi's work was overlaid by later hands, and it is quite uncertain how much of the present building is due to him.

The said Filippo made models and designs for several other ruling Princes, among them the model of the *porto* for the Signore di Pesaro. This was one of the Malatesta family to whom the lordship of Rimini also belonged. I can find no account of this port, which was formed by the embouchure of the river Foglia (the ancient Isaurus). It was a fine port at that era, but by the time of Francesco Maria II. della Rovere—the family who ruled Pesaro in the sixteenth century—it had fallen into decay, and was restored by him. Pius VII. added a fort and a lighthouse in 1821, so that little of Brunelleschi's work can be seen now. We are told he built a fine fortress for the Lord of Rimini, Sigismondo Malatesta, but there is no documentary evidence of this, though Manetti asserts it in his "Huomini singulari."

It is true that Malatesta was in Florence in 1436, when he took his oath as Commander-in-Chief of the Papal troops. All the city was at that time making a hero of the triumphant architect of the cupola, and Malatesta may have consulted him as to the castle he designed to build for himself. Fabriczy contends that the words: "Erexit construxitque," as applied to Sigismond, in the inscription on the castle, point to Malatesta as the actual designer and builder, an assertion which he thinks the more probable as "Sigismund was

Ferrario photo

COURTYARD OF THE CASTELLO, MILAN

PLATE XXXVIII

afterwards known as the designer and architect of the forts at Ragusa and Rhodes." But, seeing how in all ancient inscriptions the patron's name is placed as the originator, and the artist's either omitted or modestly named below, this is not entirely conclusive.

Again, Fabriczy thinks "Brunelleschi was too old and feeble, at the date given (1446), to undertake any such great work at a distance from Florence." But the castle was begun in 1436, and finished in 1446, so Filippo would only have been fifty-nine years when it was begun, and several of his great works date later than this. The castle is now utterly mutilated, and used as a common barracks. The rose and elephant, with the inscription on the walls, still remain to point to its former princely possessors. Milizia, in his "Memorie degli Architetti," p. 162, gives an account of Brunelleschi's later visit to Rome, which his earlier biographers omit, but, as usual, he cannot tell us what he did there. He says that Pope Eugene IV. (1431-1447) begged Cosimo de' Medici to send him an architect, as he wished some building done. Cosimo sent Brunelleschi with a letter, in which he wrote: "I send your Holiness a man who (such is the grandeur of his genius) would have the courage to move the world." When the Pope beheld Filippo, so small and meagre and ugly, he cried "So this is the man with energy enough to move the world!" "If your Holiness will give me a fulcrum for my lever, you will see what I can do." Milizia adds: "It is not known what work he undertook in Rome, but he was sent back to Florence laden with presents and honours."

CHAPTER XIII

FILIPPO'S DEATH; AND THE HERITAGE HE LEFT TO THE WORLD

THE journey to Rome is the last one chronicled, if we except his return to Pisa, in 1440. After that the work at the Duomo was at the critical part of the closing-in of the summit and beginning the lantern, and he was probably not able to absent himself. Vasari says that, after fatiguing himself greatly in those works which shed honour on his name, Filippo fell ill and passed to a better life on April 16, 1446. He adds that he was mourned by his country, which knew and valued him more in death than in life. Baldinucci enlarges on this, and says, "His loss was wept for by all his friends, and even enemies, by all his companions and rivals, and especially by the poor artisans and beggars, who had lost in him the greater part of their substance, for they had till now received from him both charity and lucrative employment."

Neither Vasari nor Baldinucci was right as to the precise date of his death, which took place on the 15th and not on the 16th, as many writers say. This date is proved from a document in the archives of the Opera,* where, under the date February 20, 1446 (1447 of our time), is registered a payment to the heirs of Filippo Ser Brunellesco Lippi, late *provvisore* of the cupola, of 123 lire 19 soldi 10 denari, as the rest of his

* Libro G. Stanziamenti 1442 to 1446 a.c. 133 l.

salary to the fifteenth day of April, 1446, *on which day he expired* ("qua die expiravit").*

Grand funeral obsequies were held in the Duomo, where his corpse lay beneath the mighty vault he had made, surrounded by candles, and visited for a last look by all the city. After the ceremony, in which the chief *arti*, and all the consuls and masters of the Opera took part, the remains were placed in the campanile. This was, probably, to await the decision of the city as to the site of his permanent tomb. The family sepulchre of the Brunelleschi was in S. Marco, his father's house being in Via Larga (now Cavour). It lay between the pulpit and the door, and had a marble slab bearing the family arms, the wavy lines and the two fig-leaves. The family, probably, wished him to be buried there, but the city decreed that he must lie in the Duomo. Some time elapsed before any decision was arrived at, for it appears that he was not buried for several months. A document given entire in Guasti,† dated February 18, 1446, *i.e.*, the year after April, 1446, distinctly says the body of the said Filippo was still in deposit in the campanile of the Duomo, "quod corpus et cadaver dicti Filippi qui adhuc in depositum est, et repositum est, et est in campanile," and the Opera deliberate that it shall be buried in the Church of Santa Reparata, and that the Opera shall at its own expense

* Several writers have disputed this date, and assert that he died in 1444; but Ammannati, "Storia Fiorentina," part ii., p. 47, under the date 1446, says: "A month after the coming of Archbishop St. Antonino there died in this city Filippo Brunelleschi, to whose noble and elevated genius the memorable cupola of Santa Reparata will render testimony for all the centuries as long as it shall stand."

† Guasti, "La Cupola," doc. 120, p. 56.

put a marble monument on the wall, for which Don Carlo di Gregorio, the Florentine Chancellor, shall write the inscription.

The funeral expenses were to be paid by the architect's family. It is not explained why he was kept so long unburied.

The monument was a marble medallion, by Buggiano.* It must have been a grateful task to his pupil and adopted son, Andrea Buggiano, to sculpture his foster-father's portrait, which was placed near that of Arnolfo in the Duomo, which one of them began and the other finished. In this relief we have certainly the most authentic likeness of Brunelleschi. Nothing of his plainness is softened or flattered away. He is there with his rugged, masterful face, determination printed on every crease of it. Beneath this his appreciative city placed the following inscription:

> Quantum Philippus Architectus arte Daedalaea valuerit; cum huius celeberrimi Templi mira testudo, tum plures Machinae divino ingenio ab eo adinventae documento esse possunt. Quapropter ob eximias sui animi dotes, singularesque virtutes eius B. M. Corpus XV. Kal. Maias anno MCCCCXLVI. in hac humo supposita grata patria sepeliri iussit.

From the "Spogli Strozziani," quoted by Moreni, in a note to Baldinucci (p. 282), we find that Filippo had made a will as early as September 23, 1431, leaving his property to Carlo, Bartolommeo and Alamanno, sons of Ser Tommaso Aldobrandi, his relatives in the male line. In 1441 he made another will, naming as his legatee Andrea di Lazzero di Cavalcante of Borgo a Buggiano, near Lucca. He left 100 florins, which were invested

* See Frontispiece.

in the Monte del Comune, to the Hospital of Santa Maria Nuova, and devised legacies to his relatives of the Aldobrandi family, named in the first will. All the rest went to his adopted son, Andrea da Buggiano. While mentioning Filippo's legacies, it might be interesting to know what property he possessed. His tax papers* for 1427 are thus headed in his quaint and queerly spelt Italian:

"To the most reverent lords, the officers of the *catasto* (taxes), these are the possessions of Filippo di Ser Brunellesco. Item: A house and its appurtenances in the parish of S. Michele Berteldo; Gonfalone of the Dragon, in the quarter of San Giovanni; in the first part of which I live, the second is occupied by Nanni di Girozzo degli Agli, the third and fourth parts by the sons of Bindo degli Agli. I have, moreover, 1,415 florins invested in the Monte del Comune, at the rate of 15 to 19 per thousand. Also 420 florins in the Monte di Pisa."

Such was the substantial heritage which Filippo Brunelleschi left to his heirs, but he left to the world of art and science an inheritance infinitely greater. He found architecture languishing, and rapidly becoming a mere mechanical art in the hands of a guild which had once been its grandest exponent, but which from the gradual splitting up into various branches, and the infiltration of mediocre members, had lost its former life. Seeing it useless to continue longer in the grooves of the building guild, Brunelleschi was led by his Roman studies entirely to purge architecture of mediævalism, and to go back to the classic purity of style.

* Archivio di Stato di Firenze. "Portate al Catasto: Quartiere S. Giovanni; Gonfalone Drago a.a. 1427," tome liii., p. 810.

A real Brunelleschi building differs as much from those of the later Renaissance masters of the seventeenth century as it does from the Italian Gothic of his contemporaries. One may be certain never to find a false line or an unscientific design by him. If in a building which he may have begun you see such a falsity as a broken pediment, or an arch lacking the keystone, be sure that was placed by a later hand. If you find one of his favourite simple arches without pillars, whether plainly moulded or sculptured, filled by a window or door with a pediment which has no relation to the arch, such as Donatello's door in the sacristy of San Lorenzo and Ammannati's windows in the basement of the Pitti palace, it is pretty certain those pediments were not in Brunelleschi's design. He so loved the pure arch that he never mingled it with other architectural forms; if he made his windows with pediments, the pediment stood alone, dedicated to its right use of supporting the weight above an opening, but never did he mix it with his arches. The strongest mark of his architecture is truth, the truth of a line to its object, the truth of form to its meaning.

He used very few forms, his architectural lines being almost always confined, where support in space was needed, to the arch and pillar; for mural decoration he chose the pillarless, moulded arch, or the classic panel. The round window, or *occhio*, as he called it, was also a favourite form with him when building required light from the higher parts. Yet, though his own choice of style was so severe and simple, he was perfectly unbigoted; and when the work was a question of mere restoration, he always respected older styles, and never

made a visible clash. Thus, in the Guelph palace he kept the outside entirely in the mediæval style of the basement already existing, though his hall in the interior was in pure Renaissance style. Again, at the Badia he sacrificed any design he might have wished to make for the façade, so as to keep the Romano-Lombard work pure and untouched; yet the interior is in his own semi-classical style.

Another legacy Brunelleschi left to the world of art was that of individuality. All earlier works of architecture appear to have been as it were collective, the builders of the parts being separate members of a congregate body; and though they put their original ideas and fantasies into their own part of the work, the individual artists were lost in the congregate merits of the entire edifice. We hear vaguely that Arnolfo began the Duomo, that Giotto and Andrea Pisani and Talenti, etc., went on with it, but who knows the sculptors and designers of the separate parts? It is only from late discoveries in the books of the Opera that we find the fine mandorla door was not Jacopo della Quercia's, but Nanni di Banco's. So on all the early Roman and Tuscan buildings, where there is any description at all, it usually records the patron or the ruling *operaio*, but very seldom the artist.

After Brunelleschi's grand strike for freedom, artists dared to stand alone, and the builders of the Renaissance shine out as separate men whose distinctive minds are impressed on their buildings. Michelozzi, Alberti, Cronaca, San Gallo, and, last and greatest, Michael Angelo, are all individual artists whose works are their own independent conception. The gain was certainly

homogeneity in the buildings; but there was nevertheless something of infinite variety and freedom of imagination in the collective system which was lost in the individual one.

Whether the Italian Gothic would have held its sway if Brunelleschi had not turned the taste towards a classic revival is a question which might probably be fairly answered in the negative. The classic revival was in the air; the cinque-cento Florentines were all imbued with it. In literature, in art, in everything, it was dominant. Brunelleschi was the first to apply the classic bias to architecture, and he did it on the purest possible lines. If he had not made the first steps, Alberti surely would have been the pioneer, for his studies led him in the same groove; but it would have been a different style. Indeed, if Alberti and the later builders had followed the lead of Brunelleschi on his own lines, Italian Renaissance architecture would have been far nobler than it is.

THE WORKS OF FILIPPO BRUNELLESCHI STILL EXISTING

SCULPTURES.

FLORENCE.

1. SANTA MARIA NOVELLA.

Crucifix carved in wood.

2. OR SAN MICHELE.

Statue of St. Peter. The commission for two statues to St. Peter and St. Mark was given jointly to Donatello and Brunelleschi. The former sculptured St. Mark. It is not proved whether Brunelleschi executed the St. Peter or not.

3. SAN JACOPO SOPRA ARNO.

The tabernacle for the host was designed by Filippo, but executed by Giusto da Settignano.

4. MUSEUM OF THE BARGELLO.

Sacrifice of Isaac, a relief in bronze which was cast for the competition for the doors of the Baptistery.

PISTOJA.

5. THE CATHEDRAL.

Two half-figures of prophets cast and chiselled in silver. They are placed at the ends of the first row of statues on the superaltar.

ECCLESIASTICAL ARCHITECTURE.

FLORENCE.

6. THE CATHEDRAL.

The cupola, the largest that had been till then attempted. It was designed by Brunelleschi, and built under his superintendence without scaffolding, except quite at the top, and entirely without centering. It occupied him from 1417 to his death in 1446. His part of the building began with the octagonal tribune, and ended with the base of the lantern.

7. TRIBUNE OF SAN ZENOBIO.

A vaulted subterranean chapel beneath the present altar of the saint—a plain low vault containing three ancient episcopal tombs.

8. IN THE SACRISTY.

The *arco piano*, a flat passage leading to the organ-gallery, and passing across the sacristy high over the door. It is built without supports, and has the masonry of an arch without its curve.

9. CHOIR OF THE DUOMO.

The octagonal choir was designed by Brunelleschi, and temporarily erected in wood. Bandinelli afterwards executed it in marble.

10. PIAZZA SAN LORENZO.

The fine classic church of San Lorenzo, which is of noble proportions, of basilican form, designed and almost finished by Brunelleschi.

11. SACRISTY OF SAN LORENZO.

The older sacristy was entirely built by Filippo, excepting only the heavy portals of Donatello's bronze doors.

12. CLOISTER OF SAN LORENZO.

Designed by Brunelleschi, but partly changed when the Laurentian Library was built.

13. CHURCH OF SANTO SPIRITO.

The architect's masterpiece. A grand church of original design. Nave and transepts have a double colonnade. It was begun by Brunelleschi, but finished from his designs.

14. THE CHURCH OF "GLI ANGIOLI" IN VIA DEL CASTELLACCIO.

All that now remains is a polygonal mass of stone masonry known as the "Castellaccio," opposite the Maternità Hospital. It was to have been a fine circular church, but Pippo Spano the patron went to the wars, and it was never finished.

15. PAZZI CHAPEL IN THE CLOISTERS OF SANTA CROCE.

A beautiful and ornate neo-Renaissance building, begun in 1420.

16. LOGGIA OF THE FOUNDLING HOSPITAL ON PIAZZA SS. ANNUNZIATA.

Designed by Brunelleschi, chiefly erected and partly altered by Francesco della Luna.

17. LOGGIA DI SAN PAOLO, PIAZZA S. MARIA NOVELLA.

A similar colonnade, which is attributed to Brunelleschi, but no documentary evidence exists to prove it.

18. THE BARBADORI CHAPEL IN SAN JACOPO SOPR' ARNO.

An arched chapel for an altar, with a small free-built dome.

FIESOLE.

19. THE BADIA AT SAN DOMENICO.

The church and convent were designed by Brunelleschi, but chiefly built on his plans by later artists. The church is of a Renaissance style internally, but the façade is the old Romano-Lombard one.

CIVIL ARCHITECTURE.

FLORENCE.

20. PALAZZO DELLA PARTE GUELFA, VIA DELLE TERME.

The work of Brunelleschi in this was the erection of an upper story on the massive basement of the ancient Lamberti house. In the interior he made a grand Renaissance assembly-room, but the exterior was in keeping with the Tuscan style of the basement. This fine hall has been cut up by a staircase and class-rooms, but it is hoped that it will shortly be restored.

21. PALAZZO BUSINI, AFTERWARDS QUARATESI, PIAZZA OGNISSANTI.

A house externally in old Florentine style, the upper floor projecting on brackets. The interior has signs of the architect's classic tendencies. It was richly adorned with *sgraffiti* by Andrea Feltrini; these have been copied in the present restoration.

22. THE BARBADORI PALACE, IN BORGO SAN JACOPO.

A house entirely in Brunelleschi's Renaissance style, with fine spacious rooms. It is the first house on the left entering from Ponte Vecchio.

23. PAZZI PALACE, NOW QUARATESI, VIA DEL PROCONSOLO.

One of the few buildings in which Brunelleschi's work is fairly preserved. It is in beautifully ornate Tuscan style, with large double-light arched windows with sculptured mouldings. The cortile is especially elegant.

24. PALAZZO PITTI.

Only the central portion is the work of Brunelleschi; the sides and wings were later additions.

25. VILLA PITTI, NOW VON STUMM, AT RUSCIANO, PORTA S. NICCOLÒ.

Originally built for Luca Pitti by Brunelleschi, but so frequently added to and altered that it is difficult to recognise his part in it.

26. ROYAL VILLA AT PETRAJA.

The tower of this villa is said to have been either built or restored by Brunelleschi.

MILITARY ARCHITECTURE.

PISA.

27. FORTIFICATIONS OF PONTE AL MARE.

Two towers were erected by Brunelleschi to guard the bridge nearest the sea, but not much of them can be distinguished now.

28. PORTA DEL PARLASCIO.

Fortified and strengthened.

29. VICO PISANO, ON THE FRONTIER OF PISA.

A fortress with fine towers and bastions, and walls all round the town.

LASTRA, NEAR SIGNA.

30. A fortress now partly destroyed, and a walled village called Malmantile. The walls of the latter are still standing, a unique instance of a fortified village.

RENCINE AND STAGGIA.

31. Two strongholds in Val d' Elsa, fortified in 1431 by the Florentines, Brunelleschi being chief architect. Some remains of the Staggia castle are still existing.

MANTUA.

32. CASTEL SAN GIORGIO.

A fine castle either built or restored by Brunelleschi. It has since been altered and modernized, but the general style is unchanged.

FERRARA.

33. Some works of fortification, not specified.

MILAN.

34. THE CASTELLO.

Restorations in the fortifications; Brunelleschi's parts were the Castello and Rocchetta, or keep, in which was the palace of Duke Filippo Visconti.

RIMINI.

35. CASTLE OF SIGISMONDO MALATESTA (NOW IN RUINS).

Brunelleschi's employment on this castle is not proved.

ROME.

36. Some works for Pope Eugene IV., not specified.

DOCUMENTS

I

GUASTI: "La Cupola," p. 25, doc. 43:

D. MODELLO MURATO, PER FILIPPO DI SER BRUNELLESCO, NANNI D'ANTONIO DI BANCO E DONATELLO.

(*a*) *Stanziamento ai detti tre Maestri.*

(An. 1419, a' 29 dicembre.)

Stanziaverunt Filippo ser Brunelleschi, Iohanni Antonii Banchi, et Donato Niccolai, civibus florentinis, invicem, quos recipere assertum fuit pro certo modello Cupole dicte ecclesie per eos facto et murato cum lateribus et calcina, sine armadura, pro exemplo Cupole; in totum inter omnes, et per eos prout eis videbitur dividendos, florenos quadragintiquinque auri (B.D. LXXVIII, a.c. 51 t.).

Filippo di ser Brunelescho, e Giovanni d'Antonio di Bancho, e Donato di Nicholò di detto Bardi, deono avere per loro faticha durata in fare j modello di mattoni murato a chalcina, sanza alchuna armadura, fatto più tempo fa, per asenpro e modano della Chupola grande, fiorini quarantacinque d'oro (B.S. rr. a.c. 60).

II

GUASTI: "La Cupola," p. 38, doc. 74:

CASSAZIONE DEL GHIBERTI.

(An. 1425, a' 28 giugno.)

Deliberaverunt quod Laurentius Bartoluccii, aurifex, non possit nec teneatur habere ab Opera prefata aliquod salarium pro eius mercede et offitio a prima die iulii proxime futuri in antea, et in

futurum, etc.; non obstante electione facta de dicto Laurentio alias per consules, operarios et quattuor offitiales Cupole dicte Opere, loquente in contrarium (B.D. LXXXVII. a.c. 25 t.)

III

GUASTI: "La Cupola," p. 55, doc. 117:

(An. 1434, a' 26 agosto.)

Deliberaverunt quod Capitaneus populi civitatis Florentio sollicitetur, quod captus pro Arte Magistrorum in suo palatio ad ipsorum instantiam detineatur in dicto palatio, et non relapsetur sine eorum licentia; et hoc pro eo quod fecit dicta Ars Filippo ser Brunelleschi in contentum offitii ipsorum operatiorum (L.D.I. a.c. 221).

IV

GUASTI: "La Cupola," p. 90, doc. 261:

BENEDIZIONE DELLA CUPOLA.

(An. 1436, a' 31 agosto.)

Stanziarono a Simone di Lorenzo, famiglio de l' Opera, lire settantadue, soldi dodici, den. vj, per più spese pe' lui fatte, a stanza de l' Opera, a' tronbetti e piferi che sonorono; e pane e vino e charne e frutte e chacio e macheroni e altre chose, per dare a maestri e ministri de l' Opera, e a' chalonaci (canonici) e preti di chiesa, per la festa e benedizione fatta a dì 30 d' aghosto 1436, della chiusura della Chupola, e per darne e presentarne el vesschovo di Fiesole, che andò in sulla Chupola a benedire (B.S. cc. a.c. 134).

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