

INTRODUCTION

In the summer of 1915, Le Corbusier, working on the conclusion of his manuscript for *La construction des villes*, spent a long stretch of time in the Bibliothèque Nationale of Paris, leafing through prints, reproductions, and photographs of architecture and modern works of art. Among his notes appears a comment originally jotted on the back of a postcard bought in Italy in 1907. It refers to and includes in its margin a quick sketch of the monumental building painted by Giotto in the scene of *The Renunciation of the Goods* in the Bardi Chapel in the Franciscan church of Santa Croce in Florence.¹ Le Corbusier, who visited the chapel during his first trip to Italy in 1907, was able to not only appreciate Giotto's work, but also to understand it through the lens of other texts, such as John Ruskin's French translation of *Mornings in Florence*, which contains long passages on the purity and mysticism of monastic life among Franciscans.² Le Corbusier wrote: "Then the loggia rises onto the roof where there is a pretty view and the tranquillity of the street (. . .)."³ Although brief, the Swiss architect's note nonetheless reveals that he was more interested in the functional potential of the Giottesque building than in analyzing its form and style.

Le Corbusier – who, in fact, remained impressed by the loggia in the upper portion of the building – intuited that it could be an architectural feature that permitted the contemplation of landscape and celebrated the tranquility of a site, while reflecting perhaps on architectural solutions that protect one from

the chaos of the contemporary city. The Swiss architect and painter thus read a building painted in the early Trecento by trying to understand its potential for contemporary architecture in an age of radical innovation in both the theory and practice of the discipline, a moment in which the classical tradition was letting modernism take its place.

Le Corbusier is only the last of a long series of artists across the centuries who, as we shall see, analyzed and interpreted Giotto's painted architecture and turned it into a true and autonomous category, distinct from built architecture and with forms and characteristics of its own. As shown in this book, Giotto himself owed a large part of his amazing contribution to painting to the analysis and interpretation of ancient Roman sources containing the representation of architecture.

Indeed, the example of Le Corbusier affirms the famous statement by Leon Battista Alberti, who in *De Pictura* notes: "*If I'm not mistaken, the architect took from the painter architraves, capitals, bases, columns and pediments, and all the other fine features of the buildings. The stonemason, the sculptor and all the workshops and crafts of artifices are guided by the rule and art of the painter.*"⁴ Although this claim may seem captious, the rapport between painting and architecture – and sculpture – is certainly indivisible, and exchange between the two disciplines is an intrinsic aspect of their respective evolution that works independently of historical era. Painted architecture – or rather that complex of buildings and structures of various more or less realistic genres that appear in the backgrounds of paintings but can also interact with characters and create a pictorial space – has a history as ancient as that of the representation of the human body. Vitruvius already perfectly grasped its meaning: "*For a painting is a representation of something that exists or could exist, such a man, a building, a ship or other things from whose finite and ascertainable shapes copies are derived by an imitation of their forms.*"⁵ In specifying the difference between "that which exists" and "that which could exist," Vitruvius distinguishes between painting that represents existing objects and that which represents possible objects. In architecture, possible objects are equivalent to ideas and architectural ideas are anything else but *projects*, and it is with this objective in mind that one must examine many buildings painted by Giotto.

As noted, the bond between painting and architecture is indivisible in many respects, and begins with its creation. When Alberti completed *De pictura* in 1435, the humanistic renewal of sculpture had begun little more than twenty years earlier, whereas that of architecture and painting a mere ten prior. Painters such as Masaccio and architects such as Filippo Brunelleschi were considered exceptions in a panorama that was still late Gothic.⁶ Thus it is not surprising that in delineating the basic stages of the process of pictorial composition, Alberti adopted a highly traditional, if not altogether Giottesque, sequence

that was applicable to both medieval and humanist painting.⁷ Describing the process of conceiving and representing form, Alberti claims that it derives from the observation of nature:

*We divide painting into three parts and this division we learn from Nature herself. As painting aims to represent things seen, let us note how in fact things are seen. In the first place, when we look at a thing, we see it as an object which occupies space and he will call this process of setting down the outline, appropriately, circumscription. Then, as we look, we discern how the several surfaces of the object seen are fitted together; the artist, when drawing these combinations of surfaces in their correct relationship, will properly call this composition.*⁸

And then specifies that:

*Circumscription is the process of delineating the external outlines on the painting.⁹ Composition is that procedure in painting whereby the parts are composed together in a picture. The great work of the painter is the "Historia;" parts of the "Historia" are bodies, part of the body is the member, and part of the member is a surface.*¹⁰

Alberti then states that when representing the body in painting, composition, defined within the field by circumscription, must be a logically syntactic aggregate. Immediately afterward he adds:

*In the composition of members care should be taken above all that all the members accord well with one another. They said to accord well with one another when in size, function, kind, color and other similar respects they correspond to grace and beauty (. . .) So one must observe a certain conformity in regard to the size of members and in this it will help, when painting living creatures, first to sketch in the bones, for as they bend very little indeed, they always occupy a certain determined position. Then add the sinews and muscles, and finally clothe the bones and muscles with flesh and skin.*¹¹

Alberti then describes a pictorial method that begins with a balanced and harmonious composition of parts, "members," but also with the "construction" of the human figure or animal according to a tectonic logic, from the skeleton, to the muscle, and finally to the flesh – or, translated into architectural terms, from the inner structure – walls, piers, floors, roofs, and so forth – to the surface and decorations. The body of a living creature must therefore be analyzed and reconstituted in the same way that a building is constructed. In *De Re Aedificatoria*, which Alberti wrote after *De Pictura* and completed when he had already begun actively to practice architecture, Leon Battista not only organized the order of the chapters according to the tectonic logic described

previously, but reaffirmed the existing relation between a building and the human body:

And herein lies the difference between the panelling and the bones: with the former, the skins are filled with stone chipping and any rubble that is available – a quick task involving little more than shovelling; with the latter, irregular stones are never or only very seldom included, but ordinary-bond stonework is used to bind together the whole thickness of the wall.¹²

Furthermore, one must not forget that Leon Battista defines columns, piers, and trabeations as the “bones” of a building: “Taking their example from Nature, they never made the bones of the building, meaning the columns, angle, and so on, odd in number.”¹³

At this point it is clear that the process of composing a natural or an artificial object is identical while it still resides in the artist's mind. It is in a later stage that the specificity of the *medium* determines the difference, in our case between a painted and constructed building. As Michael Baxandall explained, such a distinction has its own story that begins in the classical era, survives in medieval logic, and is reformulated by Alberti himself.¹⁴ In Book VI of *De Re Aedificatoria*, Alberti writes that the architect is not a carpenter and that planning is a mental process:

The pleasure to be found in objects of great beauty and ornaments is produced either by invention and the working of the intellect, or by the hand of the craftsman, or it is imbued naturally in the objects themselves.

The intellect is responsible for choice, distribution, arrangement, and so on, which give the work dignity; the hand is responsible for laying, joining, cutting, trimming, polishing, and such like, which give the work grace.¹⁵

Thus *compositio* derives from *ingenium* (intellect), whereas the determination of an abstract form – and is thus the materialization – from the *to artefice* (the crafter), which may belong to the very person endowed with *ingenium*.

Beauty, which, in *De Oratore*, Cicero had already recognized in the idea of *concinntas* – a kind of symmetry found in the words of a sentence that create a pleasing rhythm – may already reside in the idea of a building independently of the materials of which it will be realized.¹⁶

Nonetheless the distinction between the abstract, projected idea, created from lines and angles – *lineamenta* – and its realization – *structura*¹⁷ – was already known in the Middle Ages, as is testified in the writings of the French logician, Pierre Abelard.¹⁸ Indeed, at some moment between 1118 and 1137 he noted:

The form towards a certain action leads of our soul is a sort of “thing” imagined and composed that the mind invents for its own sake, when and how it wants. So are the cities we dream or the shape of a building

to be constructed, something that the architect conceives as a model or exemplar of what it has to be built.¹⁹

Praising Giotto's frescoes in the Palatine Chapel in Naples, in 1358, Petrarch distinguished between *manus* and *ingenium*, and, when describing the Dioscuri of Montecavallo in Rome, was impressed by the *ingenium et ars* that went into their creation.²⁰

To return to Alberti, the *ingenium* of the architect coincides with that of the painter because both originate in a *compositio*, whereas the feature that distinguishes architecture from painting lies in the object, or in the theme to be realized, which is produced by the *artefice* through which his practical ability achieves his ends. Painting thus comes to be conceived according to the same criteria as does architecture; the final product differs solely because of the nature of the medium. Yet what happens when the ultimate objective of architecture is to be painted on a surface rather than to be materially constructed? As will be seen, differences between a painted and a real building most of the times are substantial, even in the case where one is a "portrait" of an existing model. The reasons for this are many. The first and most obvious one lies in painted architecture's freedom from the restraints of a budget, a building site, and construction; free of these restraints, it can express ideal forms, impossible to find in the real architecture of its time, such as, for example, symmetry in the façades of private palazzo, in line with what Edouard Pommier wrote about the notion of what Laura's portrait by Simone Martini means for Petrarch: an opposition between the *alma* intended as the original and pure idea and the *velo*, the world of appearance that darkens the true knowledge; the image the portrait conveys is a reminiscence of the world of pure ideas.²¹

Painted architecture, especially in the Middle Ages, but even much later, did not need – as real architecture does – foundations, or a ground plan from which to rise, nor was it conditioned either by the shape of a lot or other constraints presented by the context, but pursued the most "visual" logic possible.²²

One can infer from the sinopie beneath many frescoes in which architecture is depicted that buildings were conceived in more or less complex volumetric blocks that owed their form to the demands of narrative, symbolism, and the layout of the frame – the true fetters of painted architecture. The geometric definition of these volumetric blocks corresponds to the Alberti notion of *circumscriptio*, or definition of an object's perimeter, in this case an architectonic volume rather than a human body. On the inside of such a form the painter lays down the typical elements of architecture, such as doors, windows, cornices, terraces, decorations, and so on, which are equivalent to the members of the human body, or the *compositio*, which thus takes on both a pictorial and architectural value. Thus architecture, whether real or painted, owes its

respective forms to the specific confines of its discipline, yet is always based on the same compositional process.

In his famous summary of the revolutionary contribution of Giotto, Cennino Cennini claims that the Tuscan painter “shifted the art of painting away from the Greek to the Latin manner and transformed it into the modern one, and had a fuller understanding of art than did anyone ever before.”²³ This statement, applied to painted architecture, acquires a meaning that until now has barely been investigated and begs to be analyzed with interpretative tools that have not yet been used or are completely new.

Painting in Latin – *dipingere in latino* – implies Giotto's direct knowledge of ancient roman sources, but what does it mean to restore painted architecture, which was still Byzantine, through a type of representation inspired by such examples in the Duecento? What sort of ancient models were these, and how were they analyzed and reintroduced? These questions were raised and also recently resolved by Serena Romano with respect to the ancient sculpture that influenced Giotto,²⁴ while it has been known for some time now that the pictorial architectural frames that first appear in the frescoes of the Legend in Assisi are a classicized version of those that had already been used in Roman frescoes in the period straddling the late eleventh and early twelfth century, during the so-called *Renouveau Paleochretien*.²⁵

Giotto's painting has inspired artists, critics, historians of art, even architects, and the general public since it first appeared,²⁶ and generated such a vast bibliography that it is difficult today to take account of all the literature. For this reason it will be easy for the expert reader of this book to find *lacunae*. All aspects of the Tuscan artist's production have been addressed and dissected, proposed and contradicted, dividing and uniting historians according to the questions and the period in which they were raised. Amid all these aspects, the painted architecture of Giotto's frescoes has received less attention than the others, and has often been regarded as a mere backdrop to the scene and subordinate to the narrative, an attitude that evidently is shared also in other fields.²⁷

Chiara Frugoni masterfully explained that from late antiquity, architecture was represented not according to the artist's will but following precise conventions: the building was intended to be understood in the easiest way possible, giving the priority not to a naturalistic rendering but to a “pedagogic” one, through which the volume looks like a cardboard box before being glued where all its sides are flattened one next to the other. Shadows, forthshortened views, and fusion with the characters and space are accurately avoided.²⁸ Such principles were formulated by the Greek philosopher Plotinus (205–270) and would be adopted up to the time of Giotto.²⁹

In effect, this was the state of painted architecture from the late antiquity until the *Renouveau Paleochretien*, when a slow period of change and innovation

began that led to the revolutionary results of Giotto. During the “Dark Ages,” in fact, painted architecture lost the force and credibility that it had gained in the so-called second Pompeiian style, in which not only were buildings represented in a highly realistic fashion, but the scenes depicted were often framed by real and detailed architectural orders painted on the surfaces of walls.

This book tries to raise some very practical and obvious questions: what are the problems that a painter confronts when he conceives architecture that is to be represented on a pictorial surface? What are the problems posed by a painted architecture that must be submitted to pictorial constraints? And what is a painter's level of interest in, and comprehension of, architecture, which, as we will see, also includes that of antiquity, represented by Roman ruins? Such questions lend themselves to multiple answers that vary according to the historiographical camp of the historian. The answers offered by art historians can basically be divided into three categories: those that explain the appearance of the buildings through their symbolic meaning in the fresco; those that try to trace the actual models that inspired the painted architecture; and those that assess the manner in which the architectonic object has been integrated into the pictorial space.³⁰ John White deserves the credit for having paved the way for the analysis of painted architecture through the study of the representation of pictorial space, an analysis that begins with the painted architecture of antiquity – to which one finds precise references in the architectural frames in Assisi – and extends through the entire fifteenth century.³¹ White's particular contribution to the study of Giotto consists in revealing how painted architecture changed from mere pictorial background, to which it had been reduced in the Middle Ages, to a volume defined within a natural pre-perspectival space. Nonetheless, the English art historian limited his analyses to descriptions of architectonic volumes and their relationship to spatial contexts without dealing with the stylistic, compositional, and structural features of painted architecture, and as if it were a two-dimensional rendering of a more or less realistic building.³²

Decio Gioseffi's study attempted to fill these *lacunae*, and was important above all for its monographic and comprehensive treatment of Giotto's oeuvre, which also included the complicated issue of the architecture built by the Tuscan artist. In terms of its language, Giotto's built structures include nothing connected to his painted architecture, and that is the reason why they will not be treated in this book. This lack of continuation – which means indeed Giotto's strict *conformitas* with existing architecture – happens despite the fact that he began his architectural career only towards the end of his life, after having invented and represented a considerable quantity of two-dimensional architecture.³³ Gioseffi takes up the theme of pre-perspectival representation introduced by White, but amplifies it by introducing the notion of the Tuscan master's “architectonic culture,” which had previously been noted but

discussed, as we will see, in only a general way by Vincenzo Fasolo. This sort of Roman and Florentine “culture” in the Assisi frescoes turns into a Lombard and Venetian one in those in Padua. Gioseffi, in fact, tried to find actual points of reference for some of the painted structures, such as the Augustan Arch of Rimini for the Golden Gate, the basilica of San Marco in Venice, for the Temple of Jerusalem in the *Expulsion of the Merchants*, and the church of San Francesco in Bologna for the building in the *Massacre of the Innocents*.³⁴ Inasmuch as his effort was commendable, it was insufficient because it did not take into consideration the fundamental contributions made by Erwin Panofsky and Fritz Saxl in 1933, and Richard Krautheimer in 1942, through their studies on medieval iconology in art and architecture.

Indeed, Panofsky and Saxl claim that

The knowledge of classical subject matter and appreciation of classical form were not lacking during the Middle Ages, but, because of the failure to relate them in practice, classical subject matter, especially the mythological stories, completely lost its original form, and classical form so lost its original subject matter that a Phaedra could be used as a Virgin Mary and a Venus as an Eve.³⁵

Medieval art was thus able to absorb classical models, but not interested in retaining their original appearance.

In his seminal essay on the iconography of medieval architecture, Krautheimer in turn demonstrates how in the Middle Ages,

The parts which have been selected in these “copies” stand in a relation to one another which in no way recalls their former association in the model. Their original coherence has been discarded. The original unity has been disintegrated and the elements have been reshuffled, as it were.³⁶

In the specific case of Giottesque painted architecture, one will discover instead that one of the reasons for the difference between the prototype and its representation arises from the demand to adapt the model to the symbolic and narrative meaning within the pictorial composition.

The actual model is thus not represented as it appears in reality, but is manipulated as if it were a palimpsest adjusting its function within its pictorial context.³⁷ The essays of Panofsky and Krautheimer – in my opinion still unsurpassed – have not been taken into consideration by the scholarship on the painted architecture of Giotto and have thus deprived it of an important interpretative instrument still of fundamental importance today, as we shall see.

In 1939, the architect, restorer, and art historian Vincenzo Fasolo “looked” at Giotto’s painted buildings for the first time through the lens of his own discipline.³⁸ His seminal essay reveals how in the Assisi Legend as well as in the Bardi Chapel in Santa Croce in Florence, the architecture of the individual

frescoes is tied into the entire layout of the program by means of a general geometric grid. Even more important is the analytical method proposed by Fasolo “. . . to measure architectonic elements, to detach them from the complex, and to examine with the eye of an architect.”³⁹ This brilliant intuition did not have a chance to disclose itself fully as it was circumscribed by the narrow limits of the essay's brevity. This notwithstanding, it was to bear much fruit, and not only for this author. Arnaldo Bruschi, who began his career as an assistant to Fasolo,⁴⁰ took up and expanded this claim in two illuminating articles of 1978 and 1979.⁴¹ In tracing a history of architectural forms from Arnolfo di Cambio to Filippo Brunelleschi, Bruschi analyzed Giottesque and subsequent painted architecture in a brilliant and innovative manner, investigating the form of the elements and their syntax and coherence.

For the first time, painted buildings came to be considered as more or less realistic architectural structures represented on a surface. Bruschi, “examining with the eye of an architect,” analyzed their forms (trying to link them, wherever possible, to existing models) and structural coherence by calculating their modular and proportional units. Consequently, he revealed the morphological features that explain the new realism achieved by Giotto and his pupils. Bruschi's contribution was novel and fundamental to paving the road to important research on painted architecture, above all that of the Renaissance, which has nearly always carried out predominantly by historians of architecture.⁴²

All the same, Bruschi's analysis, strictly endodisciplinary, does not take two things into consideration: on the one hand, pictorial demands, or the symbolic and narrative role of the building within the fresco and its relationship to the general composition of all the frescoes of a wall or an entire cycle; on the other, he does not consider the iconographical tradition of painted architecture, though it is one of recent origin. The limitation of his approach, therefore, is that it results in an endogenous interpretation of a single, isolated building in the context of a particular fresco.⁴³

This book sets out on the methodological path carved out by Bruschi – who was an architectural historian with architectural training – but integrates it with the techniques of art history and extends the analysis to all the painted architecture attributed to Giotto. The proposal of new attributions or chronology is irrelevant to its intention. Instead one hopes that it will offer a new key for reading and new criteria for interpreting a field – painted architecture – that has not been sufficiently analyzed and systematized in a manner helpful either to specialists studying Giotto and those studying medieval painting in general, who often considered the buildings just a secondary “layer.” Nonetheless, certain obstacles, occasionally insurmountable, continue to exist. First is the uncertainty regarding some attributions – above all in the Assisi cycle, as well as in the Chapels of St. Nicholas, the Magdalene, and the Infancy of Christ in the Lower Church. Second is the question of the chronology of the

frescoes depicting the *Legend*; their insecure chronology problematizes their relationship to frescoes by Pietro Cavallini in the Roman church of S. Paolo *fuori le mura*, which contain comparable elements to those in Assisi, as will be seen. The third unresolved problem is the dating of the frescoes in the Lower Church in Assisi, especially with respect to the completion of those of the *Legend* cycle, as well as in respect to the images decorating the Peruzzi and Bardi Chapels in Santa Croce in Florence, all together falling into the category of works by Giotto whose dates are still being debated. Such thorny issues lie beyond the scope of this book, although an analysis of the artist's painted architecture could offer new and useful means for addressing problems of attribution and chronology.

Another important obstacle confronting this research lies in real architectural sources. As will be seen in three cases – the Temple of Minerva in the *Homage of a Simple Man* in the Assisi Legend, the Chapel of Enrico Scrovegni in the counterfaçade of the actual chapel in Padua, and the Torre delle Milizie in the Peruzzi Chapel in Santa Croce – “portraits” of buildings resemble real subjects without representing them exactly. In these three particular cases, the comparison is facilitated by the fact that the three buildings still preserve their original features, albeit in somewhat modified form. Consequently in this case, it is important to describe not the fidelity of the copy to the original, but the discrepancy between the model and its representation, and to explain the reasons why, which vary from one image to another. In all other portraits the architectural models have either vanished or been modified to the point that they no longer resemble those seen by Giotto and his pupils. This means that the medieval architectonic subject is often elusive or only partly reconstructable through either archaeological or, even less frequently, documentary means. Nonetheless, uncertainties in chronology and attribution combined with the difficulty of dealing with now unrecognizable architectural models must not discourage the undertaking. Even if one cannot establish precisely which Roman frescoes were known to Giotto, for example, it is clear, as we shall see, that *some* were known to him. Given the relative frequency of painted architecture in ancient Roman frescoes, the identification of exact prototypes is paradoxically of secondary importance. In cases where it is impossible to detect resemblances to existing structures or features, one must seek other options. The first lies in uncovering the “coherence” of the fictitious building. The “coherence” of painted architecture refers to its feasibility, to the Vitruvian phrase *potest esse*, or to its verisimilitude, which is still restricted by the heavy limitations that impede medieval pictorial representation from imitating nature realistically (in the sense that architecture can be equated with artificial nature) in a potentially real but not necessarily existing building. In other words, *potest esse* is to be understood as *proiectum*, or the architectural project. The medieval painter, perched on the scaffold before an empty surface and ready to fill it