Reconstruction, construction and deconstruction of late medieval Sienese altarpieces from Ugolino di Nerio to Sassetta: a reassessment

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Reconstruction has driven research in Italian late medieval and Renaissance painting for the last half century. Most surviving paintings of the period are fragmentary and need recontextualization. This involves structural examination, technical expertise, and liturgical knowledge. It requires collaboration between scholars, scientists and restorers. Exemplary cases are Simone Martini's Dominican high altarpiece from Santa Caterina, Pisa, and Ugolino di Nerio's Franciscan high altarpiece from Santa Croce in Florence. Subsequently dismembered their reconstruction has demanded a multiplicity of approaches. The initial deconstruction of such altarpieces could be caused by a variety of factors: change of patron, new liturgical fashions, and physical deterioration. Traditional art historical methods of attribution have proved insufficient. Lack of evidence often inhibits reconstruction, the absence of contract-drawings, knowledge of the patron and original setting, understanding of the complexities of canon law, liturgy and local custom are all contingent. Contemporary Latin terminology is often confusing and the wide-spread use of the formula >modo et forma<, the imitation of a specified earlier model, has only recently been fully appreciated. The totality of these arguments has been slow to coalesce, and much reconstructive work remains to be done.

The recent, revelatory exhibition of the major Sienese artist, Taddeo di Bartolo (c. 1362-1422) at Perugia prompts several reflections. What should be expected from a comprehensive exhibition of a late medieval artist's oeuvre, and what can and cannot be achieved in such an exhibition and its accompanying catalogue? Comparable questions were already raised by the Berlin 2005/2006 exhibition »Geschichten auf Gold«, which focussed on Ugolino di Nerio's polyptych from the Franciscan church of Santa Croce in Florence, and the mostra of Ambrogio Lorenzetti at Siena in 2017/2018. How can fragmentary paintings be presented and the vital historical background be suggested to the twenty-first century public? The Perugia exhibition took place in the medieval Palazzo dei Priori, where imaginative efforts were made to recreate medieval environments for the paintings; Ambrogio Lorenzetti was displayed in the Trecento Ospedale di Santa Maria della Scala, whose façade once displayed an important fresco cycle by the painter and his brother Pietro. »Geschichten auf Gold« was housed in a purpose-built modern museum, with an enviable range of display possibilities. Each setting provided a different, yet relevant context for the paintings exhibited. It is in varied environments such as these that reconstruction becomes an absolutely essential heuristic tool. How then, has reconstruction itself been handled in recent years, and what are its potentialities?

Fundamentally different criteria, historical and scientific-technical, nowadays underlie almost all reconstructions of late medieval paintings. Increasing awareness of their necessarily complementary relevance has led to better understanding of the individual works and their demands on the spectator. Yet, the introduction of new methods of investigation, display, and demonstration have, inevitably, also led to mistakes and misconceptions. All reconstructions are necessarily reinterpretations. Any attempt at reconstruction therefore involves considerable responsibilities, primarily, respect is owed to the original altar-painting, and subsequently its artists, their patrons, the intended destination, church setting and its customary public. While this article concentrates on Siena as a pioneering centre of late medieval altarpiece production and export, its principal criteria for reconstruction can equally apply to many other areas of Italy.

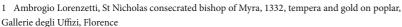
Some years ago, I was told in an American gallery »We cannot present fragments to our public«. However, giving the object the impression of completeness and inappropriately beautifying it, can themselves fundamentally mislead the viewer and falsify the picture; a mistaken reconstruction is dangerous. Many Early Italian pictures are fragments, initially forming parts of elaborate, composite paintings, predominantly from churches. To grasp their roles, to understand the painter's intentions, the patron's wishes and the viewer's reaction, we have to envisage the fragment as part of the whole, and attempt reconstruction of the original work in its former location. In fact, reconstruction has dominated research in the last half century.

Prior to re-construction, we should consider construction and de-construction. The expectation that a picture fits any frame and any space is a modern concept established during and developed since the Renaissance.¹ It does not apply to paintings from the late thirteenth to the early fifteenth centuries. In their creative process carpentry of the wooden painting-support and its framework was firmly integrated with gilding and painting. One conditioned the other, a crucial aspect to which we shall return. Poplar, then the most common pictorial support in central Italy, as a soft wood excludes dendrochronology, ages poorly and is sensitive to humidity. In central Italy *circa* 1300 the pictorial support of large-scale altarpieces changed basic structure, shape and size,

For help I am indebted to Julian Gardner, Pierluigi Nieri, Isabella Droandi, Anne Dunlop, Gail Solberg, Neville Rowley and Svenja Lilly Kempf.

¹ Christa Gardner von Teuffel, Reframing a Revolution. Filippo Brunelleschi and the Development of the Florentine Renaissance Altarpiece, in: Predella 47, 2020, pp. 79–93, LI–LXVI.







2 Bernardino di Betto detto Pinturicchio, Enea Silvio Piccolomini consecrated cardinal, ca. 1502–1507, fresco, Libreria Piccolomini, Cathedral, Siena

built of vertical instead of horizontal planks. This facilitated the formal development from the low rectangular dossal to the taller, multipartite polyptych (fig. 1). From the mid-fourteenth century multi-storeyed polyptychs were gradually simplified and eventually unified, so that by the mid-fifteenth century a rectangular or rounded, unified pictorial surface emerged, framed only after completion (fig. 2). Painting and framework could then be independently executed and subsequently united, as is still the case.

Many high-quality painting fragments survive from Siena. After the battle of Montaperti in 1260 when it unexpectedly triumphed over Florence and its allies, Siena enjoyed a long period of peace, successful self-government and economic wealth, which substantially encouraged craftsmen and artists.² As business extended into the Sienese hinterland, it prompted new buildings of churches and houses which required paintings.

The altarpiece, the focus of this essay, be it painted or sculpted, was never essential for celebration of mass;³ – a crucifix, candles, liturgical books, vessels, and vestments sufficed. Yet altarpieces stimulated devotion, instructed the congregation, embellished churches and permitted identification of their patron, who could be the resident religious institution or an individual donor, a family, or also a guild or confraternity (fig. 3). The altarpiece became ever more popular, the polyptych, single-

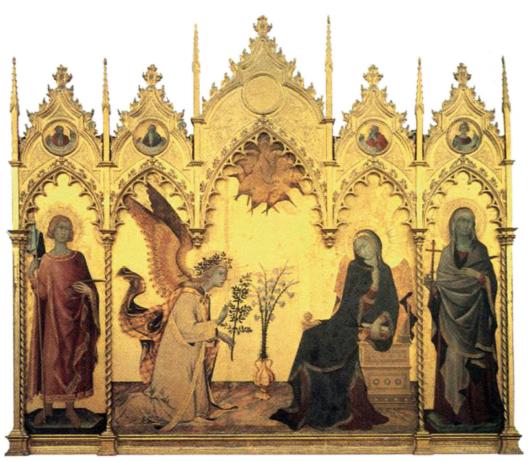
or multi-storeyed, the most favoured formal type during the Trecento; and Siena was its Italian centre.⁴

Even in Italy undisturbed altarpieces in their original framework are now rare, and those located in their original destination rarer still. The signed seven-part polyptych (heptaptych), completed by Simone Martini from Siena around 1319, for the Dominican convent of Santa Caterina in Pisa, is an almost complete example, now in the local Museum (fig. 4).⁵ Its core is constructed of seven vertical planks, which

² Gabriella Piccinni, Siena nell'età di Duccio, in: Alessandro Bagnoli, Roberto Bartalini, Luciano Bellosi et al. (eds.), Duccio, exh. cat. [Siena, Santa Maria della Scala, 4.10.2003–11.1.2004], Milan 2003, pp. 27–35; ead., Siena negli anni di Ambrogio, in: Alessandro Bagnoli, Roberto Bartalini, Max Seidel (eds.), Ambrogio Lorenzetti, exh. cat. [Siena, Santa Maria della Scala, 22.10.2017–8.4.2018], Milan 2017, pp. 78–93.

³ Julian Gardner, Altars, Altarpieces, and Art History. Legislation and Usage, in: Eve Borsook, Fiorella Superbi Gioffredi (eds.), Italian Altarpieces 1250–1550, Oxford 1994, pp. 5–19. 4 Henk van Os, Sienese Altarpieces 1215–1460, Vol. I and Vol. II, Groningen 1984 and 1990. Joanna Cannon, The Creation, Meaning, Audience of the Early Sienese Polyptych. Evidence from the Friars, in: Borsook, Superbi Gioffredi 1994, as n. 3, pp. 41–79.

⁵ Joanna Cannon, Religious Poverty, Visual Riches, New Haven/London 2013, pp. 138–148, with full bibliography and reference to Pierluigi Nieri, Il restauro del polittico pisano di Simone: conferme e novità emerse dai dati diagnostici e tecnico-materici, in: Bolletino d'Arte IXL, 2022, pp. 71–88, forthcoming at time of writing.



 $3\,$ Simone Martini and Lippo Memmi, Annunciation with Saints, 1329–1333, tempera and gold on poplar, Gallerie degli Uffizi, Florence



 $4\,\,$ Simone Martini, Polyptych of Santa Caterina, around 1319, tempera and gold on poplar, Museo Nazionale di San Matteo, Pisa



5 Simone Martini, Back of Polyptych of Santa Caterina, around 1319, tempera and gold on poplar, Museo Nazionale di San Matteo, Pisa

were once secured by horizontal battens at the back (fig. 5). An inscription socle was attached to the front of the altarpiece, inserted between the main panels and the predella. The solid core presumably rested on a box-like structure, of which only the frontal, horizontal sections survived. A finely articulated framework of wood and plaster, divides the main surface and integrates the seven panels, upper gallery and crowning gables. Laminated wooden layers, decorated with *pastiglia* (a fine



6 Simone Martini, Back of Polyptych of Santa Caterina, detail of fig. 5; the original nail pattern indicates the lost interlocking battens

plaster ornament), were applied to the spandrels of the rounded, cusped arches. The elaborate frame architecture employs inner spiral columns, some of which still survive, intermediary pilasters, now almost all removed, and outer piers, now entirely lost.⁶ The latter originally stabilized the massive altar-painting on the altar block and anchored it to the floor. In taller polyptychs the uppermost pinnacles were often carpentered separately, and secured above the main components, either by vertical battens or slots, as can be observed in the polyptychs by Pietro Lorenzetti at Arezzo and Taddeo di Bartolo at Perugia and Montepulciano. Furthermore, monumental structures increasingly used interlocking horizontal battens at the rear. They radically facilitated the execution of the large components in small workshops and in addition the transport of these components to their final destinations. Simone Martini and Ugolino di Nerio both successfully employed this procedure (fig. 6).⁷

⁶ Christa Gardner von Teuffel, The Buttressed Altarpiece. A Forgotten Aspect of Tuscan Fourteenth Century Altarpiece Design, in: Jahrbuch der Berliner Museen 21, 1979, pp. 21–65, reprinted and annotated in: ead., From Duccio's Maestà to Raphael's Transfiguration. Italian Altarpieces and their Settings, London 2005, pp. 119–182, 136–137.

⁷ For Simone see now Nieri's important forthcoming essay, as n. 5; David Bomford, Jill Dunkerton, Dillian Gordon et al. (eds.), Art in the Making: Italian Painting Before 1400, exh. cat. [London, The National Gallery, 29.11.1989–28.2.1990], London 1989, p. 106, fig. 73, and in general Ciro Castelli, Techniques of Construction of Wooden Supports for Painting, in: Marco Ciatti, Cecilia Frosinini (eds.), Structural Conservation of Panel Paintings at the Opificio Delle Pietre Dure in Florence. Method, Theory, Technique, and Practice, Florence 2016, pp. 285–349, 322–325.

The painted surface of the panel would have been prepared by layers of linen, occasionally some parchment to cover nails, poor quality wood or joins, rough and fine plaster and *imprimatura*. Framework and picture fields were covered with *bolus* and then gilded before painting began. The gilded areas, bounded by incisions, left space for the insertion of the painted figures. With the help of radiography, infrared reflectography, and ultraviolet light compositional incisions by stylus and underdrawings in carbon, strengthened by ink and pen, wash and brush can be detected; additionally the painting's general condition can be assessed and alterations observed. Furthermore pigments, binding medium and varnishes can be identified. Understanding of the pictorial process assisted by these new scientific procedures has greatly facilitated accurate reconstructions.

Simone's Pisan high altarpiece allowed the Dominican Order to display a learned programme of the Virgin and Child among Saints with a Pietà below and God the Father above. The saints are differentiated as Order's saints, titular saints of church and altar, popular local saints, accompanied by angels, prophets, apostles, and Church fathers. After the not unusual, radical separation of the seven individual compartments the correct reconstruction of their sequence was long disputed. Only when sufficient attention was paid to the wooden construction was certainty achieved. Following common fourteenth-century carpenters' practice the individual compartments were originally aligned by wooden pegs or dowels, regularly placed and driven horizontally into the sides of two neighbouring vertical planks.⁸ As the outermost planks were not doweled to the lateral piers, these outer planks with dowelholes only on the inner side were easily identifiable, and the middle position of the Order's saints, Dominic and Peter Martyr, thus securely determined.

Perhaps in reaction to or even in competition with Simone Martini's high altarpiece at Pisa the Dominicans of Santa Maria Novella promptly commissioned Ugolino di Nerio, another master trained by Duccio, with the heptaptych for their main altar. It was presumably financed by the family of Fra Baro Sassetti, already documented in 1304 as *Baro de parentela Sasetorum* in the convent. However, this important early Sienese polyptych in Florence appears lost. The polyptych



7 Giovanni Antonio Baccanelli, Saint Francis, 1647, engraving







8 Ugolino di Nerio, reconstructed Saints Peter, John the Baptist and Paul, around 1325, tempera and gold on poplar, Staatliche Museen zu Berlin, Gemäldegalerie, Eigentum des Kaiser Friedrich Museumsvereins

painted shortly afterwards by Ugolino for the Florentine Franciscans was also early disassembled, to facilitate transport and later sale; its components are therefore scattered among several major collections.¹¹ At Santa Croce it was liturgical change which provoked the de-construction of this Sienese masterpiece, and in 1569 a monumental tabernacle for the Host replaced it. The heptaptych was separated into its seven compartments, predella and outer piers, which were then shifted to the convent's upper dormitory. In 1647 precise engravings by Giovanni Antonio Baccanelli recorded its three Franciscan saints, Francis (fig. 7), Anthony of Padua and Louis of Toulouse, which Niccolò Catalano published in reverse in 1652. In 1785, the Franciscan Guglielmo Della Valle described the tavola still in the same location, but in poor condition, and mentioned the artist's signature, the Passion predella, the crowning pinnacles and the richly decorated framework. Besides liturgical and logistical reasons for de-construction we may in this case also suspect devotional ones, as the most venerated panels, the Virgin, Francis and Anthony, badly damaged, perhaps by abrasion or candle burns, were separated and eventually lost. The other well-preserved main saints, John the Baptist, Peter and Paul survive in Berlin (fig. 8). The beautiful

⁸ Ciro Castelli, The Construction of Wooden Supports of Late-Medieval Altarpieces, in: Machtelt Israëls (ed.), Sassetta. The Borgo San Sepolcro Altarpiece, Florence/Leiden 2009, I, pp. 319–333; Castelli 2016, as n. 7, pp. 285–349.

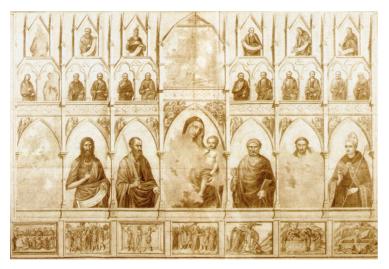
⁹ Delphine Carron, Iñigo Atucha, Anna Pegoretti, Chronologie de Santa Maria Novella (1291–1319), in: Iohannes Bartuschat, Elisa Brilli, Delphine Carron (eds.), Dominicans and the Making of Florentine Cultural Identity (13th–14th centuries), Florence 2020, pp. 23–52, 35.

¹⁰ Christa Gardner von Teuffel, Botticelli, Ugolino di Nerio and a Sassetti Memorial Portrait, forthcoming.

 $^{11\,}$ Dillian Gordon, The Italian Paintings before 1400. The National Gallery Catalogues, London 2011, pp. 430–477.



9 Ugolino di Nerio, Carrying of the Cross, around 1325, tempera and gold on poplar, National Gallery, London



10~ David Pierre Giottino Humbert de Superville, The Santa Croce Altarpiece, around 1800, pen, brush and ink on paper



11 Reconstruction of the Santa Croce Altarpiece

Passion scenes, once forming a continuous frontal predella plank, were cut up into small, manageable portions for sale before 1835, as Gustav Waagen, a German art historian then visiting English collections, recorded (fig. 9). By then the market steadily exploited the growing interest in »primitive« paintings by private collectors.12 A late eighteenthcentury drawing attributed to Humbert de Superville apparently copied in detail the entire framed heptaptych and clearly documented the painting's uneven condition (fig. 10).13 This elaborate drawing obviously records the altarpiece's appearance at that time. Art historians unquestioningly accepted the drawing and its purpose, allowing themselves to be misled into believing that the drawing documented the original (fig. 11). However, the arrangement of the predella scenes and the relation between the narrative socle and the upper core are unconvincing. The panel above the Madonna, already almost totally destroyed, was probably divided into a double-arched field, attested by other examples of the same altarpiece-type.14 The uppermost pinnacle very likely contained the Crucifix or a Crucifixion, absent from the predella, but here Christ Crucified would have appropriately referred to the church's dedication. Also missing in Superville's drawing are the lateral buttresses, which were in origin crucial for stabilizing the altarpiece. How otherwise would you keep a monumental, heavy altarpiece upright on a freestanding high altar? Stability became particularly pressing in the case of double-sided altar-paintings, which exclude any additional support from the back. It therefore seems most likely that Duccio invented the massive outer piers to buttress the free-standing double-sided *Maestà*

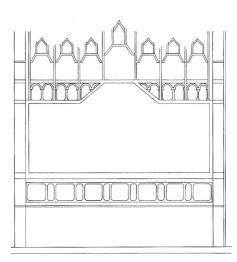
¹² Giovanni Previtali, La Fortuna Dei Primitivi: Dal Vasari ai Neoclassici, Turin 1964.

¹³ Henri Loyrette, Une source pour la reconstruction du polyptyque d'Ugolino da Siena à Santa Croce, in: Paragone XXIX, 1978, 343, pp. 15–23; this drawing was further interpreted by Miklos Boskovits, Frühe Italienische Malerei. Gemäldegalerie Berlin. Katalog der Gemälde, trans. and ed. by Erich Schleier, Berlin 1988, pp. 162–176; Stefan Weppelmann, Geschichten auf Gold in neuem Licht. Das Hochaltarretabel aus der Franziskanerkirche Santa Croce, in: id., Geschichten auf Gold. Bilderzählungen in der frühen italienischen Malerei, exh. cat. [Staatliche Museen zu Berlin, 5.11.2005–26.2.2006], Berlin 2005, pp. 26–50; Christa Gardner von Teuffel, rev. of Geschichten auf Gold, Berlin 2005, in: Burlington Magazine 148, 2006, pp. 217–220; and Gordon 2011, as n. 11, pp. 430–477, 466–467.

¹⁴ Gardner von Teuffel 2005, as n. 6, pp. 119-182, 622-628.







13 Reconstruction of Duccio's Maestà, front



14 Giovanni del Biondo, Rinuccini Polyptych, 1379, tempera and gold on poplar, sacristy chapel, Santa Croce, Florence



15 Giovanni del Biondo, Rinuccini Polyptych, Detail of Buttress, 1379, tempera and gold on poplar, sacristy chapel, Santa Croce, Florence

on the high altar of Siena Cathedral (figs. 12, 13).¹⁵ Subsequently, such buttresses, defined in architectural terms as *colone da lato*, are documented in the 1320 contract of his pupil, Pietro Lorenzetti, for the large polyptych in the Pieve at Arezzo.¹⁶ Giovanni del Biondo's Rinuccini polyptych of 1379 in the sacristy chapel of Santa Croce (fig. 14), tellingly modelled on Ugolino's altarpiece in the same church, exceptionally preserves not only its predella-box and buttresses (fig. 15), but also a crowning *Crucifixion* above the central paired Apostles.¹⁷

Ugolino's gothic frame-architecture at Santa Croce is stylistically more developed than Simone Martini's at Pisa. It reflects in miniature a

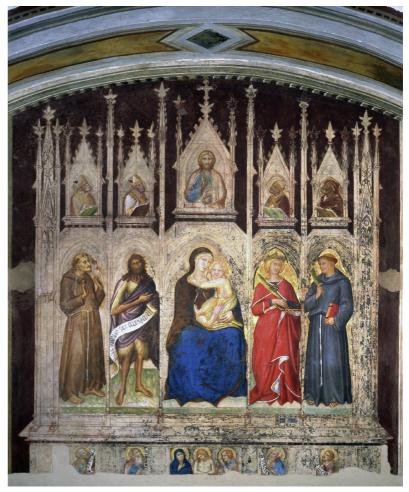
¹⁵ Loc. cit.

¹⁶ Anna Maria Maetzke (ed.), Arte nell'Aretino, exh. cat. [Arezzo, San Francesco, 30.11.1979–13.1.1980], Florence 1980, pp. 26–36; Gardner von Teuffel, 2005, as n. 6, pp. 125, 623; Michela Becchis, Pietro Lorenzetti, Milan 2012, pp. 136–146, 161.

¹⁷ Gardner von Teuffel 2005, as n. 6, pp. 119f., 145, 187.



16 Taddeo di Bartolo, Triptych of the Assumption, 1401, tempera and gold on poplar, Cathedral, Montepulciano



17 Lippo Vanni, Polyptych, 1360s, fresco, Martinozzi chapel, San Francesco, Siena

gothic cathedral elevation, and must have fitted well into the new building of Santa Croce, founded in 1295: it was associated with the screen, or tramezzo, of the 1330s, now destroyed but known through excavations and a drawing.¹⁸ This screen formerly divided the lay congregation from the friars in the eastern section of the church and determined the laity's access to and view of the high altar. Ugolino might well have been familiar with avantgarde, gothic metalwork, either locally produced or imported, since Siena's location at the Via Francigena facilitated exchange with northern craftsmen, and their patrons.¹⁹ The pioneering Berlin exhibition of 2005 digitally reconstructed the original setting of Ugolino's heptaptych in the main chapel.²⁰ While successfully stimulating the viewer's imagination, by anachronistically transposing the reconstructed altarpiece into the presbytery, as it exists today, it also emphasized the underlying dangers of virtually creating an ahistorical situation: the apse stained glass windows were completed in the 1350s, and Agnolo Gaddi's choir frescoes later still.

Identifying a complete fourteenth-century Sienese polyptych in its original location is extremely difficult. Taddeo di Bartolo's huge triptych, signed and dated 1401, at Montepulciano in the Sienese hinterland, is a very rare example (fig. 16).²¹ Taddeo's masterpiece had initially helped the ambitious archpriest, Jacopo di Bartolomeo d'Aragazzi, to elevate his pieve to a collegiate church. Subsequently his family, who

had presumably financed the triptych, lost political power, but the highly venerated altarpiece remained intact on the main altar. An earlier instance is Lippo Vanni's meticulously frescoed lateral polyptych of the 1360s in San Francesco at Siena (fig. 17).²² Otherwise we may have to turn to the San Tarasio chapel of San Zaccaria in Venice for the gothic

¹⁸ Marcia Hall, The tramezzo in Santa Croce, Florence, Reconstructed, in: Art Bulletin 56, 1974, pp. 325–341; Eve Borsook, Notizie su due cappelle in Santa Croce a Firenze, in: Rivista d'Arte 3, 1961–1962, XI, pp. 89–107, 104–105; Andrea De Marchi, Relitti di un naufragio: affreschi di Giotto, Taddeo Gaddi e Maso di Banco nelle navate di Santa Croce, in: Andrea De Marchi, Giacomo Piraz (eds.), Santa Croce, Oltre le apparenze, Pistoia 2011, pp. 32–71.

¹⁹ For the 1338 reliquary of the Holy Corporal at Orvieto by Ugolino di Vieri da Siena see Elisabetta Cioni, Scultura e Smalto nell'Oreficeria senese dei secoli XIII e XIV, Florence 1998, pp. 468–621.

²⁰ Stefan Weppelmann, Digitale Kunstgeschichte? Eine Fallstudie an Ugolinos Altarwerk aus Santa Croce, in: id. 2005, as n. 13, pp. 118–122.

²¹ Gail E. Solberg, Taddeo di Bartolo, exh. cat. [Perugia, Galleria Nazionale dell'Umbria, 28.5.–30.8.2020], Milan 2020, pp. 347–349; ead., Taddeo di Bartolo, forthcoming.

²² Van Os 1990, as n. 4, pp. 34–38; Elsa Camporeale, Polittici murali del Trecento e Quattrocento: un percorso dall'Umbria alla Toscana, in: Atti e Memorie Dell'Accademia Toscana di Scienze e Lettere. La Colombaria 76, 2011, LXII, pp. 11–76, 39–40.



18 Taddeo di Bartolo, Mass at Greccio, 1403, tempera and gold on poplar, Niedersächsisches Landesmuseum, Hanover

high altarpiece of 1443 and its flanking triptychs, still in situ, by Giovanni d'Alemagna and Antonio Vivarini.²³ Painted altarpieces, Bild im Bild (a picture within the picture), such as Ambrogio Lorenzetti's Consecration of St. Nicholas or Taddeo di Bartolo's Mass at Greccio (fig. 18), and Sassetta's Funeral of St. Francis, provide another source for reconstruction;²⁴ however it should be remembered that the artist in general intended to characterize the setting of his scene, and not to document an altarpiece.²⁵ In Florence Giotto's polyptych of the 1330s still survives in its original destination, in the contemporaneously frescoed Baroncelli chapel at Santa Croce.²⁶ Given a fashionable Renaissance frame in the 1480s, it proves that a masterpiece by the great Florentine artist was enduringly respected in situ in his home town.²⁷ The regrettable destruction of its original Trecento frame can also be interpreted as a positive sign of active cult in the family chapel. A different situation occurred at Monteoliveto, when Ambrogio Lorenzetti's St. Michael triptych was splendidly reframed in Cinquecento style without substantial loss of the original frame (figs. 19, 20).28 In contrast, the framework of the 1357 polyptych by Andrea di Cione, called Orcagna, in the Strozzi chapel at Santa Maria Novella in Florence, was most likely only materially, but not formally renewed.29 San Francesco at Bologna still preserves an extremely rare case of a late fourteenth-century, richly documented, colossal high altarpiece by the Dalle Masegne brothers, which

despite several restorations and relocations retains its original structure in marble and local stone (figs. 21, 22).³⁰ De-construction was caused not only by liturgical change, or successive patrons but also by natural

²³ Peter Humfrey, The Altarpiece in Renaissance Venice, New Haven/London 1993, pp. 40, 50.

²⁴ Gianluca Amato, Le storie di San Nicola »in figure piccole« della chiesa di San Procolo a Firenze, in: Bagnoli, Bartalini, Seidel 2017, as n. 2, pp. 182–191; Solberg 2020, as n. 21, pp. 357–362; Rachel Billinge, The Funeral of Saint Francis and the Verification of the Stigmata, in: Israëls 2009, as n. 8, pp. 528–533.

²⁵ Péter Bokody, Images-within-Images in Italian Painting (1250–1350): Reality and Reflexivity, Farnham 2015. For meta-painting, painting of painting, see further Nathaniel B. Jones, Painting, Ethics, and Aesthetics in Rome. Greek Culture in the Roman World, Cambridge 2019. I owe this reference to Julian Gardner.

²⁶ Julian Gardner, Painters, Inquisitors, and Novices. Giotto, Taddeo Gaddi, and Filippo Lippi at Santa Croce, in: Mitteilungen des Kunsthistorischen Institutes in Florenz 60, 2018, II, pp. 222–253.

²⁷ Catherine Hoeniger, The Renovation of Paintings in Tuscany 1250–1500, Cambridge 1995, pp. 107–112.

²⁸ Marco Ciatti, Luisa Gusmeroli (eds.), Ambrogio Lorenzetti: il Trittico di Badia a Rofeno, Studi. restauro e ricollocazione. Florence 2012.

 $^{29\,}$ Gert Kreytenberg, Orcagna. Andrea di Cione, Mainz 2000, pp. 81–96, 90; Gardner von Teuffel 2005, as n. 6, pp. 122–124, 624.

³⁰ Benvenuto Supino, La pala d'altare di Jacobello e Pier Paolo Dalle Masegne nella chiesa di S. Francesco in Bologna, in: Classe di Scienze Morali della R. Accademia delle Scienze dell'



19 Ambrogio Lorenzetti, St. Michael altarpiece in its original framework of around 1337, tempera and gold on poplar, Museo Civico Archeologico e d'Arte Sacra, Palazzo Corboli, Asciano



20 Ambrogio Lorenzetti, Sixteenth-century framework of St. Michael altarpiece, tempera and gold on poplar, Museo Civico Archeologico e d'Arte Sacra, Palazzo Corboli, Asciano



21 Pierpaolo and Jacobello Dalle Masegne, High altar ensemble, 1388–1392, marble and local stone, San Francesco, Bologna



22 Pierpaolo and Jacobello Dalle Masegne, High altar ensemble, Back, 1388–1392, marble and local stone, San Francesco, Bologna

disasters, such as floods, earthquakes and snow, which occasionally struck Bologna.

After discussing two major contemporary examples, painted for leading mendicant churches by Simone Martini and Ugolino di Nerio, it becomes important both to summarise and to widen the range of argument. In the past reconstruction relied predominantly on historical sources, which ought now to be balanced against and firmly integrated with technical and scientific insights. The striking quantity of fragments from disassembled altarpieces prompted viewers, antiquarians, and scholars to investigate, observe, draw and record. The on-going search for legal and literary documentation helped to identify named artists, and, to understand the religious, political, economic, social and cultural context. Apart from sheer curiosity a didactic aim seemingly motivated Guglielmo Della Valle, Johann Anton Ramboux, and Jean-Baptiste Séroux d'Agincourt. It was Della Valle remarkably enough who identified the 1308 document for Duccio's Maestà (figs. 12, 13) and insisted, that this precious painted monument should not only be better preserved, but could also be easily reconstructed, potrebbesi riattare facilmente e ricomporre.31

At the beginning of the fourteenth century demonstration- or contract-drawings for altar-paintings would have been rather unusual; contemporary contracts, payments, donations and litigation papers from

Siena are equally uncommon. The 1320 contract between Pietro Lorenzetti and Guido Tarlati, the bishop and ruler of Arezzo, for the surviving high altarpiece of the local Pieve is exceptional (fig. 23).³² It is preceded by the equally important contract of 1302 between the Florentine Cimabue, then active in Pisa Cathedral, and the rector of the Franciscan hospital church of Santa Chiara at Pisa.³³ The latter provides the earliest known contractual description of a gothic polyptych, simply defined as *tabula*, because the now familiar technical term, polyptych, was apparently introduced only in the mid-nineteenth century.³⁴ As the

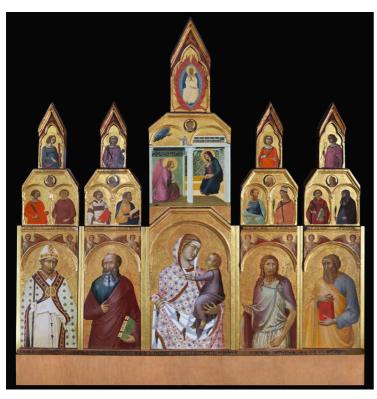
Istituto di Bologna, Rome 1915, pp. 132–155; Helen Geddes, Altarpieces and Contracts: The Marble High Altarpiece for S. Francesco, Bologna, (1388–1392), in: Zeitschrift für Kunstgeschichte LXVII, 2004, pp. 153–182.

³¹ Jane Immler Satkowski, Hayden B.J. Maginnis (eds.), Duccio di Buoninsegna, Georgia 2000, pp. 69–72; Guglielmo Della Valle, Lettere Sanesi di un socio dell'Accademia di Fossano sopra le belle arti, II, Rome 1785, pp. 63–77, 71.

³² Maetzke 1980, as n. 16, pp. 26–36; Gardner von Teuffel 2005, as n. 6, pp. 125, 623.

³³ Leopoldo Tanfani Centofanti, Notizie di artisti tratte dai documenti Pisani, Pisa 1897, pp. 119–120; Hellmut Hager, Die Anfänge des italienischen Altarbildes, Munich 1962, p. 113; Gardner von Teuffel 2005, as n. 6, pp. 132–134.

³⁴ Cf. Michel Laclotte, Polyptyques anciens et modernes. Sur le mot polyptyque, in: Polyptyques. Le tableau multiple du moyen âge au vingtième siècle, exh. cat. [Paris, Musée du Louvre, 27.3.–25.7.1990], Paris 1990, pp. 11–15, 11.



23 Pietro Lorenzetti, Polyptych, 1320– around 1325, tempera and gold on poplar, Pieve. Arezzo



24 Spinello Aretino, Sts. Nemesius and John the Baptist, 1385, tempera and gold on poplar, Szépművészeti Múzeum, Budapest

concept of gothic architecture and metalwork and therefore also of the architectonically conceived altarpiece was still very new in Italy circa 1300,35 its application was initially hesitant or inconsistent, and the relevant terminology, mostly architectural, not painterly, was extremely flexible, with regional variations entering only later. This caused considerable difficulties of interpretation and reconstruction. In addition, the notary's normal language was Latin; only later were certain contractual paragraphs concerning the craftsmen translated into vernacular. How in 1302 were colone (columns, piers or pilasters), predula (gradine or socle), and tabernaculum (frame, container or ciborium) understood? Cimabue's tabula is lost, or was perhaps never executed, while Pietro Lorenzetti's altarpiece survives, shorn of most of its original framework. This was removed in order to make the structure less wide to fit more easily onto a side altar. In both documents the altarpiece type is barely characterized, although Madonna and four saints implied a five-part structure. The 1302 polyptych programme was described by biblical hierarchy and the historian thus faces a delicate task of reconstruction. Location of and access to an altar and its light source might also have conditioned the panel's figural composition. In Lorenzetti's contract the programme was minimally outlined, as Tarlati had still to specify his choice. Some spaces were materially distinguished, to be covered either with fine gold or silver, ultramarine blue or other good-quality colours, because of the cost involved. In addition, an altarpiece-contract would normally state the destination, date of completion, price, method of payment, guarantors, witnesses, notary, penalties for lateness and the site of contractual procedure.36 Contracts often inform us about the patron. Tarlati, who had commissioned two fashionable gothic seals for himself from Siena, largely determined the programme and insisted on personally subcontracting the legnatuolo, or woodworker. The wooden support and its framework were executed in one workshop, while painting and, commonly, gilding were done in another. The responsible painters signed as SYMON DE SENIS ME PINXIT in Pisa, PETRUS LAURENTI HANC PINXIT DEXTRA SENENSIS in Arezzo and UGOLINUS DE SENIS ME PINXIT in Florence, all accentuating their native town. The inscription on the monumental triptych destined for Santa Maria Nuova, the Olivetan house in Rome, exceptionally commemorated the three masters responsible, the Florentine carpenter, Sienese gilder and Aretine painter (fig. 24).37 Their lengthy contract of 1384 refers not to a drawing, but modo et forma, that is that the tabula should be modelled on the Olivetan altarpiece at San Ponziano in Lucca, recently completed by the same group of artists. The reference to an already existing work of art could cover many aspects, panel type, structure, programme, style, material, as well as quality of execution.³⁸

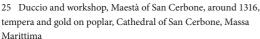
³⁵ Cf. Jean-Marie Guillouet, Ambre Vilain (eds.), Micro-Architectures Médiévales. L'échelle à l'épreuve de la matière. Paris 2018.

³⁶ Christa Gardner von Teuffel, Clerics and Contracts: Fra Angelico, Neroccio, Ghirlandaio and Others. Legal Procedures and the Renaissance High Altarpiece in Central Italy, in: Zeitschrift für Kunstgeschichte 62, 1999, pp. 190–208, reprinted and annotated ead. 2005, as n. 6, pp. 372–398, 656–666.

³⁷ Ugo Procacci, La creduta tavola di Monteoliveto dipinta da Spinello Aretino, in: Vasari II, 1928–29, pp. 35–48; Stefan Weppelmann, Spinello Aretino und die toskanische Malerei des 14. Jahrhunderts, Florence 2003, pp. 50–52, 145–157, 363–366.

³⁸ Hannelore Glasser, Artists' Contracts of the Early Renaissance [Ph.D. Columbia University 1965], Ann Arbor 1968; Gardner von Teuffel 2005, as n. 6, *ad indicem*.







26 Ambrogio Lorenzetti, Maestà of San Pietro all'Orto, 1335–1337, tempera and gold on poplar, Museo d'Arte Sacra, Massa Marittima

Another case in point is the *Maestà* by Duccio's bottega in Massa Marittima, although the specific documentation appears lost (fig. 25).³⁹ At the time *modo et forma* represented a standard, formulaic way of communication devoid of negative allusions. Extensive networking further helped; monastic and mendicant orders often relied on trusted craftsmen recommended to them by houses of their own order; thus Meo da Siena exported altar-paintings to the abbeys of Subiaco and San Pietro at Perugia,⁴⁰ while the Augustinian friars at Siena surely proposed Ambrogio Lorenzetti to their brothers in Massa Marittima (fig. 26),⁴¹ and the Franciscans at Siena probably recommended Ugolino di Nerio, who had presumably already delivered to them the heptaptych, now at Williamstown, to Santa Croce at Florence (figs. 27, 11).⁴²

The Franciscans of Sansepolcro were so deeply concerned about the appropriate programme of their double-fronted and multi-tiered high altarpiece that they sent two friars to Siena to agree the *figure et l'istorie della taula* with the artist, *come pare a noi et al maestro insiemi*, that is definition by negotiation (figs. 28, 29).⁴³ A month later they formally confirmed the exceptionally rich, descriptive programme, which Sassetta had then to paint. Although this *scripta* dates from 1439, the procedure almost certainly followed much earlier practice.⁴⁴ Another later set of documents from Vallombrosa near Florence records how a notary, powerful abbot and artist proceeded, from talk to preliminary notes, to final contract for Perugino's high altar-painting with its donor portrait.⁴⁵ Religious institutions keenly controlled that altar and priest were fit for celebrating mass, and, equally, that programme and décor of altarpieces were appropriate.⁴⁶ Orders' Rules, Constitutions, Consuetudines, decrees of General and Provincial Chapters, Apostolic Visi-

tations, sacristans' ledgers, and inventories certainly document their involvement, which in turn allows the historian to reconstruct programme and setting. Altarpiece commissions by the Dominican and Carmelite Orders were investigated by Cannon, 1982, 1987, 1994 and

³⁹ Roberto Bartalini, Duccio di Buoninsegna e bottega, in: Bagnoli, Bartalini, Bellosi et al. 2003, as n. 2, pp. 244–257.

⁴⁰ Dillian Gordon, Thirteenth- and Fourteenth-Century Perugian Double-Sided Altarpieces: Form and Function, in: Victor M. Schmidt (ed.), Italian Panel Painting of the Duecento and Trecento (Studies in the History of Art, vol. 61, Symposium Papers XXXVIII), New Haven/London 2002, pp. 228–249; Christa Gardner von Teuffel, Perugino's Cassinese Ascension for San Pietro at Perugia. The Artistic and Musical Setting of a High Altarpiece in its Cassa, in: Städel Jahrbuch, NF, 2001 (published 2002), pp. 113–164; ead. 2005, as n. 6, pp. 480–569, 673–678; Michael G. Gromotka, Transformation Campaigns of Church Interiors and their Impact on the Function and Form of Renaissance Altarpieces. The Example of S. Pietro in Perugia and Pietro Perugino's *Ascension of Christ*, in: Marburger Jahrbuch für Kunstwissenschaft 42, 2015, pp. 79–125.

⁴¹ Max Seidel, Serena Calamai, La Maestà di Massa Marittima, in: Bagnoli, Bartalini, Seidel 2017, as n. 2, pp. 232–261; Christa Gardner von Teuffel, Review of Henk van Os, Sienese Altarpieces 1215–1460, Groningen 1984, in: The Burlington Magazine 127, 1985, p. 391 established the provenance of Ambrogio's altarpiece.

⁴² John Pope-Hennessy, Heptaptych. Ugolino da Siena, Williamstown 1962.

⁴³ Israëls 2009, as n. 8, I, pp. 166f., II, p. 572.

⁴⁴ Gardner von Teuffel 2005, as n.6, pp. 372-398, 656-666.

⁴⁵ Gardner von Teuffel, The Contract for Perugino's *Assumption of the Virgin* at Vallombrosa, in: The Burlington Magazine 137, 1995, pp. 307–312, reprinted and annotated ead. 2005, pp. 345–363, 653–654.

⁴⁶ Gardner 1994, as n. 3, pp. 5-19.



27 Ugolino di Nerio, Heptaptychon, 1317–1320, Clark Art Institute, Williamstown



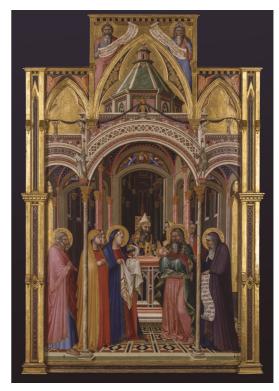
28 Sassetta, Reconstruction of the Borgo San Sepolcro altarpiece, front, 1437–1444



29 Sassetta, Reconstruction of the Borgo San Sepolcro altarpiece, back, 1437–1444



30~ Pietro Lorenzetti, Birth of the Virgin, 1342, tempera and gold on poplar, Museo dell' Opera del Duomo, Siena



31 Ambrogio Lorenzetti, Purification of the Virgin, 1442, tempera and gold on poplar, Gallerie degli Uffizi, Florence

2013 and Gardner von Teuffel, 1977, 2015 and 2016.⁴⁷ Accurate identification of the clergy's habit, its material, cut and colour, has proved crucial, as it may individuate and date different religious institutions, especially the congregations of reformed orders. Black habits normally indicate the Benedictine Order, brown and white its reformed branches. White might also be worn by the Cistercians and the Umiliati.

Knowledge of local cult proves essential for assessing altar-paintings in Siena. Cathedral and city were dedicated to Mary and the ecclesiastical year was punctuated by her major and minor feasts.⁴⁸ Therefore the Cathedral's high altar-piece, Duccio's Maestà, carried in public procession from the artist's workshop to its destination, showed the enthroned Virgin, surrounded by many saints, with the town's four patron saints, Ansanus, Savinus, Crescentius and Victor, in the front row (fig. 12).49 They recur in the four important side altar-panels where they flank representations of the four major Marian feasts, her Birth by Pietro Lorenzetti (fig. 30), the Annunciation by Simone Martini and Lippo Memmi (fig. 3), the Purification by Ambrogio Lorenzetti (fig. 31) and Christ's Nativity by Bartolomeo Bulgarini. 50 Her main feast, the Assumption, the feast day of the Cathedral's consecration, was probably prominently depicted in the Maestà's lost central gable together with a Coronation, the heavenly culmination. This hypothesis is strengthened by the Coronation in the topmost gable of Guido da Siena's multi-partite altarpiece which preceded Duccio's Maestà on the high altar.51 This was echoed significantly in the Assumption pinnacle of Pietro Lorenzetti's Aretine polyptych in the Pieve, which was also dedicated to the Virgin (fig. 23). Duccio's subordinate Marian and Christological scenes on the front and back of the predella, in the pinnacles above the galleries, and on the reverse of the main panel, as well as the four feast-paintings, provided magnificent, often varied models for later Sienese painters and patrons. Recently Simone Martini's *Annunciation* (fig. 3) was unfortunately chosen as model for the substitute frame of another retable originating from Siena Cathedral by Paolo di Giovanni Fei, without realiza-

⁴⁷ Joanna Cannon, Simone Martini, the Dominicans and the Early Sienese Polyptych, in: Journal of the Warburg and Courtauld Institutes 45, 1982, pp. 69–93; ead., Pietro Lorenzetti and the History of the Carmelite Order, in: Journal of the Warburg and Courtauld Institutes 50, 1987, pp. 18–28; ead. 1994, as n. 4; ead., 2013 as n. 5; Christa Gardner von Teuffel, Masaccio and the Pisa Altarpiece. A New Approach, in: Jahrbuch der Berliner Museen 19, 1977, pp. 23–68, reprinted and annotated ead. 2005, as n. 6, pp. 3–71, 615–619; ead., The Carmelite Altarpiece (circa 1290–1550). The Self-identification of an Order, in: Mitteilungen des Kunsthistorischen Institutes in Florenz 57, 2015, I, pp. 2–41; ead., Locating Albert: The First Carmelite Saint in the Works of Taddeo di Bartolo, Lippo di Andrea, Masaccio and Others, in: Diane Cole, Gerardo de Simone (eds.), Le arti a Pisa nel primo Rinascimento, in: Predella 13–14, 2016, pp. 173–192.

⁴⁸ Van Os 1984, 1990 as n. 4; Diane Norman, Siena and the Virgin, Art and Politics in a Late Medieval City State, New Haven/London 1999. Duccio's 1308 contract leaves no doubt about the Cathedral's dedication, *tabulam ... maioris ecclesie sancte Marie de Senis*, see Immler Satkowski 2000, as n. 31, p. 69.

⁴⁹ Gordon 2011, as n. 11, pp. 154–187 with ref. to the fundamental Cesare Brandi (ed.), Il Restauro della Maestà di Duccio, Rome 1959; Machtelt Israëls, An Angel at Huis Bergh, in: Anneke de Vries (ed.), Voyages of Discovery in the Collections of Huis Bergh, 's-Heerenberg 2008, pp. 122–133, 176–180.

⁵⁰ Monika Butzek, Le pale di Sant'Ansano e degli altri Procuratori della città nel Duomo di Siena. Una storia documentaria, in: Alessandro Cecchi (ed.), Simone Martini e l'annunciazione degli Uffizi, Milan 2001, pp. 34–59, 45 fig. 8.

⁵¹ Gardner von Teuffel 2005, as n. 6, pp. 127–132; Holger Manzke, Die Rekonstruktion der ursprünglichen Gestalt des Altarretabels mit der Madonna del Voto, der Marienkrönung und zwölf Szenen aus dem Leben Christi, in: Claritas – Das Hauptaltarbild im Dom zu Siena nach 1260. Die Rekonstruktion, ed. by Lindenau-Museum Altenburg, Altenburg 2001, pp. 11–45.



32 Luca di Tommè and Niccolò di Ser Sozzo, Umiliati Polyptych, 1362, tempera and gold on poplar, Pinacoteca Nazionale, Siena



33 Pietro Lorenzetti, Partial Reconstruction of the Carmelite altarpiece, 1329, tempera and gold on poplar, Pinacoteca Nazionale, Siena



34 Niccolò di Segna, The Resurrection Polyptych, around 1340–1350, tempera and gold on poplar, Cathedral of San Giovanni Evangelista, Borgo San Sepolcro

tion that Simone's present frame was actually neo-gothic, thus falsifying the planned reconstruction. 52

Bernardino da Siena, the barn-storming fifteenth-century preacher, told his congregation to study Simone's Cathedral's Annunciation (fig. 3) and follow the Virgin's exemplary devotion.⁵³ Often a predella narrated the life-story of a venerated saint or altar-titular, painted in the main field, such as that of St. Thomas in the 1362 Umiliati polyptych by Luca di Tommè and Niccolò di Ser Sozzo (fig. 32).54 In an outstanding case, the 1329 high altarpiece of San Niccolò dei Carmini, Pietro Lorenzetti's predella depicted the history of the Carmelite Order, obviously to consolidate its self-definition (fig. 33).55 The modest signs of an Order, or the coat of arms of a patron, assist identification. Other narrative compositions were not always altarpieces, as Simone Martini's panel of Beato Agostino Novello demonstrates originally, set above the Beato's tomb near the screen or tramezzo of Sant' Agostino in Siena. 56 By midcentury another monumental scene, the Resurrection, formed the core of Niccolò di Segna's polyptych for the Camaldolese abbey at Borgo San Sepolcro (fig. 34), firmly directing the worshipper's attention to Christ, the Salvator, and the abbey's location.⁵⁷

A wide-ranging perspective, with a largely historical approach to early altar-painting in central Italy was pursued by distinguished scholars such as Hellmut Hager, 1962, himself influenced by among others Eckart von Sydow, 1912, and Edward Garrison, 1949;⁵⁸ Henk van Os wrote a fundamental *short* history of early Sienese Altarpieces, 1984 and 1990.⁵⁹ Ground-breaking publications of more specific focus followed

by Cesare Brandi 1959, Hannelore Glasser 1965, Monika Cämmerer-George 1966, John White 1973, Christa Gardner von Teuffel 1979, Hans Belting 1990, Erling Skaug 1993, Joanna Cannon 1994, Julian Gardner 1994, Sible de Blaauw 1996, Michele Bacci 2000, and Donal Cooper 2001, to name only a few.⁶⁰

⁵² Miklos Boskovits, Italian Paintings of the Thirteenth and Fourteenth Centuries. The Collections of the National Gallery of Art, Washington 2016, pp. 103–111.

⁵³ Luciano Banchi, Le Prediche Volgari di San Bernardino da Siena, Siena 1884, pp. 441f.

⁵⁴ Pia Palladino, Art and Devotion in Siena after 1350: Luca di Tommè and Niccolò di Buonaccorso, exh. cat. [San Diego, Timken Museum of Art, 12.12.1997–12.4.1998], SanDiego 1997, pp. 13–16.

⁵⁵ Gardner von Teuffel 2015, as n. 47.

⁵⁶ Rudolf Hiller von Gaertringen, Seven Scenes of the Life of Saint Stephen by Martino di Bartolomeo in Frankfurt: A Proposal for their Provenance, Function, and Relationship to Simone Martini's Beato Agostino Novello monument, in: Schmidt 2002, as n. 40, pp. 314–339. 57 Gardner von Teuffel, Sassetta's Franciscan Altarpiece at Borgo San Sepolcro: Precedents and Context, in: Israëls 2009, as n. 8, I, pp. 210–229, 217.

⁵⁸ Hager, 1962, as n. 33; Eckart von Sydow, Die Entwicklung des figuralen Schmucks der christlichen Altar-Antependia und -Retabula bis zum XIV. Jahrhundert, Strasbourg 1912; Edward B. Garrison, Italian Romanesque Panel Painting, Florence 1949.

⁵⁹ Van Os 1984 and 1990, as n. 4.

⁶⁰ Brandi 1959, as n. 49; Glasser 1968, as n. 38; Monika Cämmerer-George, Die Rahmung der toskanischen Altarbilder im Trecento, Strasbourg 1966; John White, Measurement, Design and Carpentry in Duccio's Maestà, in: Art Bulletin 55, 1973, I, pp. 334–366, II, pp. 547–569; Gardner von Teuffel 1979, as n. 4; reprinted and annotated 2005, pp. 119–182, 622–628; Hans Belting, Bild und Kult, Munich 1990; Cannon 1994, as n. 4; Gardner 1994, as n. 3; Sible de Blaauw, Das Hochaltarretabel in Rom bis zum frühen 16. Jahrhundert: Das Altarbild als Kate-



35 Ugolino di Nerio, Last Supper, around 1325, tempera and gold on poplar, Lehman Collection, Metropolitan Museum, New York City

In 1932 Icilio Federico Joni, the Sienese restorer and counterfeiter, publicly mocked art historians, connoisseurs and dealers, and in particular Bernard Berenson, as incapable of deciding whether a painting was executed in tempera or oil.61 His own paintings successfully exploited the public's ignorance of painting techniques. The 1989 exhibition of the National Gallery, London, »Art in the Making: Italian Painting Before 1400« marked a watershed: it set out to demonstrate that technology extends knowledge. 62 Most crucially, it characterized the fragment as no longer a simple image draped in velvet or ostentatiously reframed, but as a discrete object, freed from later accretions, which provided essential clues about its maker and the processes of its making. Thus the overpainted lower, outer corners of Ugolino di Nerio's Passion predella from Santa Croce or of Ambrogio Lorenzetti's Maestà at Massa Marittima prove the existence of lateral pilasters, as their bases, before their forced removal, slightly overlapped the pictorial fields (figs. 35, 26).63 That a tiny detail can subsequently become meaningful was further established by the nail-sockets of the frontal predella of Sassetta's Franciscan double-sided polyptych, which started off the reconstruction of the entire altarpiece ensemble (figs. 28, 29), which was edited in exemplary fashion by Machtelt Israëls 2009.64 Comparably, empty letter-sockets allowed an archaeologist to reconstruct a monumental bronze inscription on the Pantheon, Rome.65

As Pietro Lorenzetti used vegetable dies in his Carmelite altarpiece (fig. 33), which faded with time and turned the Order's habits and other garments even »whiter«,66 the question arises whether the artist applied these dies also elsewhere, which leads to the major concern with pigment- and material change.67

It is the collaboration between art historian, historian, conservator, restorer and scientist, which will determine the future. Initially, a few

leading institutions, like the National Gallery in London, the Metropolitan Museum, and the Louvre, which had in-house restoration laboratories, led the way. Independent institutions like the Istituto Centrale di Restauro in Rome, the Opificio delle Pietre Dure in Florence and the Doerner Institut in Munich collaborated with independent historians. What can be achieved in a »modern« institution has recently been demonstrated by the Museo di Capodimonte at Naples. 68

Ever more regularly restoration reports were published and made available to the wider public. By then technical and scientific results were more often written up by the responsible specialists, and no more

gorie der liturgischen Anlage, in: Medelingen van het Nederlands Instituut te Rome. Historical Studies 55, 1996, pp. 83–110; Erling Skaug, Punch Marks from Giotto to Fra Angelico, Oslo 1993; Michele Bacci, »Pro remedio animae«. Immagini sacre e pratiche devozionali in Italia centrale (secoli XIII e XIV), Pisa 2000; Donal Cooper, Franciscan Choir Enclosures and the Function of Double-Sided Altarpieces in Pre-Tridentine Umbria, in: Journal of the Warburg and Courtauld Institutes 64, 2001, pp. 1–54.

⁶¹ Icilio F. Joni, Le Memorie Di Un Pittore Di Quadri Antichi. Affairs of a Painter, ed. by Giovanni Mazzoni, Siena 2004, p. 329.

⁶² Bomford, Dunkerton, Gordon et al. 1989, as n. 7.

⁶³ Gordon 2011, as n. 11, pp. 469, 470; Seidel, Calamai 2017, as n. 2, p. 232.

⁶⁴ Israëls 2009, as n. 8, I, pp. 161–209.

⁶⁵ Filippo Magi, Le iscrizioni recentemente scoperte sull'obelisco vaticano, in: Studi Romani

^{11, 1963,} pp. 50-56.

⁶⁶ Oral communication by the responsible restorer, Edith Liebhauser, Siena.

⁶⁷ See n. 62

⁶⁸ Marco Cardinali, Passato, presente e futuro nelle indagini diagnostiche. Il caso di Raffaello dalla connoisseurship alla Technical Art History, in: Angela Cerasuolo (ed.), Raffaello a Capodimonte. L'Officina dell'artista, exh. cat. [Naples, Museo e Real Bosco di Capodimonte, 10.6.–16.9.2021], Naples/Rome 2021, pp. 43–53.



36 Ugolino di Nerio, Back of St. Peter from the Santa Croce altarpiece, around 1325, tempera and gold on poplar, Staatliche Museen zu Berlin, Gemäldegalerie, Eigentum des Kaiser Friedrich Museumsvereins

by the art historian unaided. With more shared technical information, and access to the backs of the major components from Ugolino's Santa Croce heptaptych, cracks (wrongly) observed should easily have been identified as butt-joins. This should have permitted the correct combination of main saints and gallery figures (fig. 36), and produced an improved reconstruction.

The more technical approach to reconstruction also stimulated questions about the creative process, the artist's training, the family workshop and working conditions, about Cennino Cennini's treatise, guild rules and tax systems. ⁶⁹ Creighton Gilbert 1977 focussed on the role of the *legnaiuolo* (woodworker), Andreas Rothe, Marco Ciatti, Ciro Castelli, Andrea Santacesaria, George Bisacca and Christoph Merzenich all considered wooden support and painting in conjunction. ⁷⁰ Investigation into the basic characteristics of wood, the handling of it, and the necessary tools, was pioneered by Jacqueline Marette. ⁷¹

It required a wood specialist to tell both the historian and art historian that large double-fronted altar-paintings could not have been

sawn apart in the later sixteenth century, during the Counter-Reformation when many such altarpieces were removed from their high altars, since no saw wide enough for the job then existed. Masaccio at Pisa in 1426 provides another striking case: based on acute observations of the fall of light, shadows and figural composition John Shearman, while concentrating on the pictorial surface, reconstructed the original polyptych.⁷² It was the present writer who stressed the constraints exerted on Masaccio by a Sienese carpenter, who had already fully determined the wooden structure before the start of painting, and proposed another hypothetical reconstruction.73 X-rays subsequently showed that the Crucifixion and Madonna and Child were indeed painted on the same vertical planks and thus partially confirmed the reconstruction.⁷⁴ On the other hand, further technical examinations and detailed observations, taken in isolation without sufficient comparative data being then available, gave rise to the mistaken assumption of two distinct polyptychs by Masaccio at Pisa.⁷⁵

Niccolò di Segna's Camaldolese high altarpiece, mentioned above, may serve as final example for a partially successful reconstruction (fig. 34): its ultimate prototype was Duccio's Maestà in Siena, with which it once shared comparable upper pinnacles and outer buttresses. Niccolò's formal structure was in turn modo et forma, confirmed by Sassetta's well documented and reconstructed Franciscan polyptych. The single saints, now misleadingly surmounting Niccolò's polyptych, originally decorated its lateral buttresses; and its main pinnacle, now lost, presumably depicted an Ascension above the central Resurrection. In origin the latter thus directly referred to the altar panel's destination, Borgo San Sepolcro, and at the same time to the Christological programme on the reverse of Duccio's Maestà. In addition, John the Evangelist as the abbey's titular and Benedict in a white habit, venerated as founder by the reformed Camaldolese Congregation, firmly root the altarpiece in town. The pilasters dividing the saints in the main storey proved original, the predella has instead been given a modern, heavy frame, while the usual inscription socle was totally overlooked by the restorers.⁷⁶

All of this promotes deeper comprehension of the original complete assemblage and its intended setting. Sensitive and informed reconstruction makes a vitally important contribution to the understand-

⁶⁹ Cennino d'Andrea Cennini, The Craftman's Handbook [Il Libro dell' Arte], trans. by Daniel V. Thompson Jr., New York 1933; Wolf-Dietrich Löhr, Stefan Weppelmann (eds.), Fantasie und Handwerk – Cennino Cennini und die Tradition der toskanischen Malerei von Giotto bis Lorenzo Monaco, exh. cat. [Berlin, Staatliche Museen zu Berlin, January, 10.1.–13.4.2008] Berlin/Munich 2008; Hayden B.J. Maginnis, The World of the Early Sienese Painter, University Park 2001.

⁷⁰ Creighton Gilbert, Peintres et menuisiers au début de la Renaissance en Italie, in: Revue de l'Art 37, 1977, pp. 9–28; Ciatti, Frosinini 2016, as n. 7; Christoph Merzenich, Vom Schreinerwerk zum Gemälde. Berlin 2001.

⁷¹ Jacqueline Marette, Connaissance Des Primitifs Par L'Étude Du Bois, Paris 1961.

⁷² John Shearman, Masaccio's Pisa Altarpiece: An Alternative Reconstruction, in: Burlington Magazine 108, 1966, pp. 449–455.

⁷³ Gardner von Teuffel 1977, 2005, 2015, 2016 as n. 47.

⁷⁴ Dillian Gordon, The Fifteenth Century Italian Paintings, vol. I (National Gallery Catalogues), London 2003, pp. 201–223; Andrea De Marchi, Matteo Mazzalupi, La pala d'altare. Dal politico alla pala quadra, Florence 2012, pp. 63–77.

⁷⁵ Carl Brandon Strehlke, The Case for Studying Masolino's and Masaccio's Panel Paintings in the Laboratory, in: id., Cecilia Frosinini et al., The Panel Paintings of Masolino and Masaccio. The Role of Technique, Milan 2002, pp. 12–27, 18.

⁷⁶ See n. 57 and Gardner von Teuffel 2009, as n. 57, I, pp. 165-167.

ing of late medieval Sienese painting, whether it be the rare complete altarpiece restored to its original location, or a separated fragment now housed in a distant museum. Reconstruction must weigh different criteria, historical as well as technical and scientific: it requires adequate forensic photography, close and prolonged access to the original artefact and familiarity with the relevant historical disciplines. Awareness of the limits of current knowledge is also essential, while the art historian's modern aesthetic or subjective judgement should interfere as little as possible with the assessment. The often delicate or altered condition of a surviving fragment must be taken fully in consideration. The limitations of reconstruction should always be respected. At times it is safer to reconstruct graphically or digitally, thus leading the investigator and subsequently the spectator towards a possible reconstruction, rather than to >restore< the object itself irreversibly, and by such intervention invent an unlikely setting. Any reconstruction remains an approximation, and exceptions to the rule can always be found. Yet, appropriate reconstruction of paintings in their intended surroundings is essential in helping to grasp broader traditions of image, perception, reception and ritual from the Middle Ages to the present day.

Credits

1, 14, 31: Antonio Quattrone, Florence. – 2, 12, 16, 17, 19, 20, 25, 26, 30, 32–34: Lensini, Siena. – 3: Archives Evergreen Internet. – 4–6: Pierluigi Nieri Pisa/Su concessione del Ministero della Cultura Direzione regionale Musei della Toscana Firenze. – 7: Niccolò Catalano, Fiume del Terrestre Paradiso, diviso in Quattro capi, o discorsi, Florence 1652, p. 424. – 8, 36: Staatliche Museen zu Berlin, Gemäldegalerie/Eigentum des Kaiser Friedrich Museumsvereins/Jörg P. Anders. – 9: The National Gallery, London. – 10: Biblioteca Apostolica Vaticana, Vat. Lat. 9847, ff. 91v–92r, Vatican City. – 11: Stefan Weppelmann, Geschichten auf Gold. Bilderzählungen in der frühen italienischen Malerei, Berlin 2005, pp. 44–45. – 13: Christa Gardner von Teuffel, The Buttressed Altarpiece. A Forgotten Aspect of Tuscan Fourteenth Century Altarpiece Design, in: Jahrbuch der Berliner Museen 21, 1979, p. 35, fig. 14. – 15: Julian Gardner, Oxford. – 18: Niedersächsisches Landesmuseum, Hannover. – 21, 22: Solberg, Florence. – 23: Angelo Latronico per RICERCA, Arezzo. – 24: Szépművészeti Múzeum, Budapest. – 27: Clark Art Institute, Williamstown. – 28, 29: Machtelt Israëls (ed.), Sassetta, The Borgo San Sepolcro Altarpiece, Florence/Leiden 2009, I, pp. 204–207. – 35: Robert Lehman Collection, Metropolitan Museum of Art, New York City.