



CONTENTS

	Introduction	I
1	Blank Canvas: Naming, Making, and Trading	23
2	Prelude: Practices of Canvas Painting Pre-1475	55
3	Canvas City: Cycles and Altarpieces 1474–1538	91
4	Fabric and Factice: Canvas in the <i>Pittura di Macchia</i>	131
	5 Stretching the Limits	185
	Conclusion Altar Cloths and Arachne’s Web	215
	Acknowledgments	228
	Notes	231
	Bibliography	254
	Index	272
	Photo Credits	280

INTRODUCTION

IN THE MID-SIXTEENTH CENTURY, Titian put brush to canvas to paint a portrait of powerful, pulsating presence (fig. 0.1). It hangs today in the National Gallery of Art in Washington, DC, where the image appears to vibrate subtly, conveying the vitality of the living, breathing being of its protagonist, Doge Andrea Gritti. The work evokes Lodovico Dolce's praise of Titian's capacity to infuse his works with life: "He walks in step with nature: every one of his figures is alive, it moves, and its flesh trembles."¹ Andrea Gritti stands imposingly within the borders of the picture, his gaze off to one side, his massive hand grasping at his robes. That hand, oddly positioned at the center of the foreground, holds up the drapery of his long cloak. As Gritti lifts it, he appears to reveal little but a strip of barely painted canvas, running from below his clutch to the left edge of the painting (fig. 0.2). The surprising revelation of the support confronts the viewer with the material nature of this image as an object of paint on canvas. It draws attention to the presence of the foundation and troubles the assumed order of above and below.

That passage stands in stark tension with Titian's extraordinarily lifelike representation of the doge, which is even more remarkable since it was probably a posthumous portrayal. Multiple afterlives are at stake here, not only Andrea Gritti's, but that of the painting itself. The picture was initially painted as an oval, before someone (possibly even Titian himself) changed it into a rectangle not long afterward. That moment of modification might account for the appearance of the bottom edge. Since then, the painting has had the exceptional good fortune to remain in excellent condition and escape major

left Titian, *Doge Andrea Gritti*. Detail of fig. 0.1



Fig. 0.1 Titian, *Doge Andrea Gritti*, ca. 1550. Oil on simple twill with interspersed herringbone weave canvas, 133.6 × 103.2 cm. National Gallery of Art, Washington, DC, Samuel H. Kress Collection



Fig. 0.2 Titian, *Doge Andrea Gritti*. Detail of bottom edge

conservation interventions, in particular lining, a treatment that in the past often flattened early modern paintings and deformed their original surface characteristics (figs. 0.3, 0.4).² It therefore retains a rich texture—one born during the process of creation from the interplay between Titian's paint-loaded brush, a thin ground layer, and a rough canvas with an unusual irregular weave-structure woven by unknown hands (figs. 0.5, 0.6). The canvas, with its insistently undulating relief, is fundamental to the impact of the finished painting: the yarn patterns interrupt the strokes of paint, encouraging a broken mark, disrupting planes, disallowing precise contours, vitally contributing to variegated coloristic effects and, ultimately, to the slightly out-of-focus, tremblingly alive quality of Gritti's portrait. To understand how this painting came into being, and its tremendous visual force, we must attend to its catalyzing support: both to this piece of fabric with its specific material qualities and to canvas as an (art) historical phenomenon.

When Titian embarked on this work of art, he took part in a pictorial revolution. Until the late fifteenth century, artists throughout Europe usually painted on wood or on walls. Over the course of the sixteenth and early seventeenth centuries, painters increasingly adopted canvas supports instead. While neither panel nor fresco painting disappeared, by the mid-seventeenth century a tectonic shift had occurred. Canvas had become the support par excellence for the modern picture, a position it would maintain for at least three hundred years. The history of art has long credited Venetian artists with spearheading the adoption of canvas, and indeed, canvas did replace wall or wood panel as the dominant type of support for painting somewhat earlier in Venice and the Veneto than in other comparative regions. Moreover, canvas became key to the processes and poetics of a radical new style developed by sixteenth-century Venetian painters such as Titian, Tintoretto, and Veronese.

Venetian Canvas and the Transformation of Painting interrogates the adoption, development,

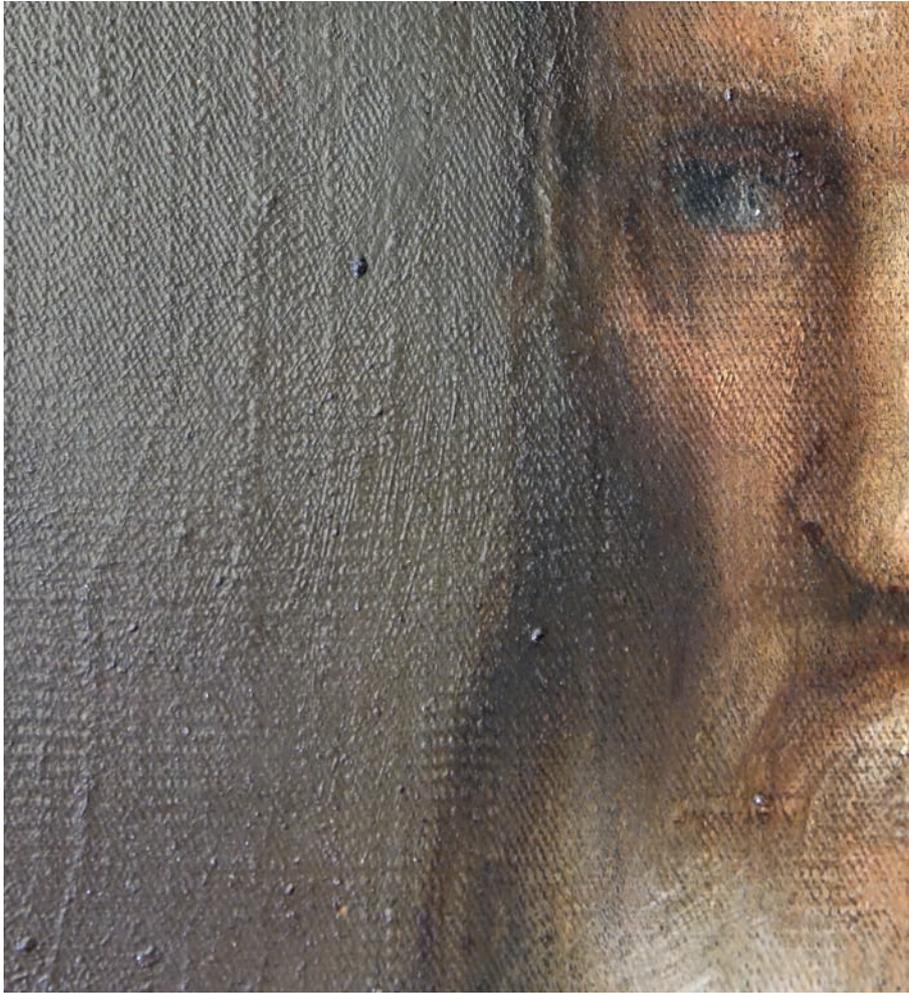


Fig. 0.3 (above left) Verso of Titian's *Doge Andrea Gritti*

Fig. 0.4 (above right) Verso of Titian's *Doge Andrea Gritti*. Detail of canvas

Fig. 0.5 (left) Titian, *Doge Andrea Gritti*. Detail of red robes

Fig. 0.6 (facing page) Titian, *Doge Andrea Gritti*. Detail showing blurring between face and background



and significance of canvas picture supports in Venice ca. 1400–1600. Approaching canvas from multiple perspectives, grounded in an intensive object-based examination of a large corpus of artworks and drawing on a diverse array of written source material—art-making manuals, guild records, cloth traders’ inventories, account books, Renaissance art criticism—this book offers a deeper understanding of the material characteristics of early modern canvas, how it was produced and supplied, the factors that encouraged its uptake, and, most of all, how it changed the making and meaning of paintings. Tracing precisely how canvas operates within pictures, it demonstrates the agency of canvas in driving the extraordinary painterly

experimentation of early modern Venice. This book argues that the existence of sixteenth-century Venice’s distinctive pictorial language—one that would change the parameters of possibility in painting for generations to come—is due in no small part to the twist of a yarn, the roughness of a thread, the thickness of a stitch.

THE INVENTION OF CANVAS PAINTING

According to Filippo Baldinucci’s *Vocabolario toscano dell’arte del disegno*, published in Florence in 1681, painting on canvas supports was an “an invention found by artisans around 180 years

ago (even if more recently in our parts), from which Art derived great utility.”³ With these words, he dated the discovery of canvas supports to around 1500 and underlined the benefits they offered to art. The spirit, if not the letter, of Baldinucci’s statement holds some water. Between the end of the fifteenth century and the first decades of the seventeenth century, canvas became the predominant support for European painting. While the transition took place at different speeds in different locations, it was a pan-continental phenomenon. Writing in Spain in around 1560, Felipe de Guevara expressed his concern that the “authority and perpetuity of panels” was being overthrown by the excellent reception of canvas painting.⁴ In northern Europe, Hans Holbein (1497/8–1543) painted 101 pictures on wood panel but just nine on canvas, while a century later Anthony van Dyck (1599–1641) produced 90 percent of his works on canvas.⁵

Baldinucci was not specific about where canvas painting first began, admitting only that Florentines were somewhat late to the party. However, another Tuscan, Giorgio Vasari, strongly associated canvas with Venice. The 1568 edition of his life of the Bellini family states:

All these works and many others were painted by Jacopo with the aid of his sons; and the last named picture was painted on canvas, as it has been almost always the custom to do in that city, where they rarely paint, as is done elsewhere, on panels of wood.... But in Venice they make no panels, and, if they do make a few, they use no other wood than that of the fir.... It is much the custom in Venice, then, to paint on canvas ...⁶

The connection between Venice and canvas persists throughout the literature on the history of artistic technique to the present. Venice is regularly credited as the original site of canvas

painting, and not only by specialists in Venetian art, who could be accused of bias. María Dolores Gayo and Maite Jover de Celis of the Prado express a widespread view: “The introduction of canvas as a support for painting, brought about by Venetian painters who developed and popularized its use, was a giant step forward in the history of art.”⁷ Venice is also frequently identified as the original home of oil on canvas painting, with Titian taking center stage. In *Rembrandt: The Painter at Work*, Ernst van de Wetering succinctly repeats this general belief: “Painting in oil on canvas was most probably developed in Venice. Titian was the first to use mainly canvas supports.”⁸

In point of fact, art did not discover canvas in 1500. Canvas—in the sense of a robust textile of woven linen, hemp, or jute—was far from a new material at the turn of the fifteenth century. Painting on such fabrics was surely not invented at all, or if it was, that event happened long before the Renaissance. Pliny attested to a portrait of Emperor Nero on linen cloth,⁹ and a few stunning depictions on linen survive from the tombs of Roman Egypt. In medieval Italy, canvas had a long-standing place in painters’ workshops: artists used linen fabric strips to cover knots in wood panels destined for painting, and sometimes they put down a layer of linen cloth to cover the entire wood plank before applying the ground, colors, and gilding. Medieval artists also adopted canvases as stand-alone supports on occasion. Nor was oil on canvas strictly a Venetian invention: one of the oldest surviving Italian paintings executed with that technique is the Tuscan Paolo Uccello’s *Saint George* (ca. 1470), and records show that as early as 1434 a painter from Ghent was commissioned to paint a crucifixion in oil on canvas.¹⁰

It would be pointless, then, to embark on a study of the development of canvas painting as a search for origins in either space or time. This

is not an invention narrative. Instead, this book is invested in a deeper understanding of the process by which canvas moved from a relatively marginal to a central position in European painting practice, and, most pressingly of all, in the pictorial consequences of that change. Venice sits at the heart of that story. As early as 1474, Gentile Bellini began to replace the frescoes that decorated the Great Council Hall of the Ducal Palace of Venice with a series of paintings on canvas. This is a clear case of historical transition in which one technique replaced another. It marks a watershed moment: from then on Venetian painting took a markedly different technical direction from the rest of Italy. Other comparable artistic centers, such as Rome and Florence, retained a fundamental commitment to fresco painting. In the decades that followed, Venetian painters also turned with increasing enthusiasm to canvas in favor of panels. By the middle of the sixteenth century artists in Venice showed a distinctive preference for canvas over either of the other two supports, and this was to radically transform Venetian visual language.

As the sixteenth century progressed, Venetian painters explored the potential of canvas with ever-greater vigor. At the same time, the city's preeminent artists such as Titian, Veronese, and Tintoretto articulated new modes of painting. Led by Titian's *pittura di macchia*, Venetian style came to be characterized by open brushwork, soft contours, blended colors, and pronounced surface texture. This was no coincidence. The rich variety of different types of canvases available in Venice made it possible to explore diverse textural effects from the foundation up. Moreover, a taut canvas encourages a loaded brushstroke to skip and bounce across its surface, provoking visible and uneven paint marks to a greater degree than a smooth panel ever could. These possibilities were recognized, exploited, and manipulated by Venetian painters to a

degree rarely paralleled at that time by their contemporaries elsewhere in Italy.

In my view, the powerful and lasting association between Venice and canvas owes more to the special role of the textile support within the painterly language of these artists than it does to any proposed technical primacy or to the simple fact that Venetian artists used canvas with unusual enthusiasm unusually early. It is difficult to look at a late painting by Titian—to really look at it—without perceiving that it is a work on canvas. Art may not have discovered canvas in Venice, but in Venice canvas painting became an art form.

EXCAVATING UNDER THE LITERATURE

On a humid day at the end of a hot summer, I was working in a library on the top floor of Palazzo Polignac, in the *sestiere* of Dorsoduro, Venice. It belongs to Save Venice Inc., a nonprofit that supports art conservation and art historical research, and the nucleus of their library is the personal book collection left by the late David Rosand (1938–2014), Meyer Schapiro Professor of Art History at Columbia University, New York. While reading one of Rosand's volumes, I noticed some penciled marginalia. One scribbled note stood out: "oil on panel ≠ oil on canvas (which is the missing term in this discussion ... so far)."¹¹

In certain respects, this book constitutes a response to that scribbled call for greater attention to canvas in Venetian art. Rosand was highly aware of the importance of canvas, as is evident from those marginalia but also from his published writings and even more so the notes and sketches he made during the process of research. The notes demonstrate his observation of specific details about Venetian canvases: for instance, the numerous pages he annotated on Titian's late *St. Sebastian* (ca. 1570) include diagrams mapping the seam structure of

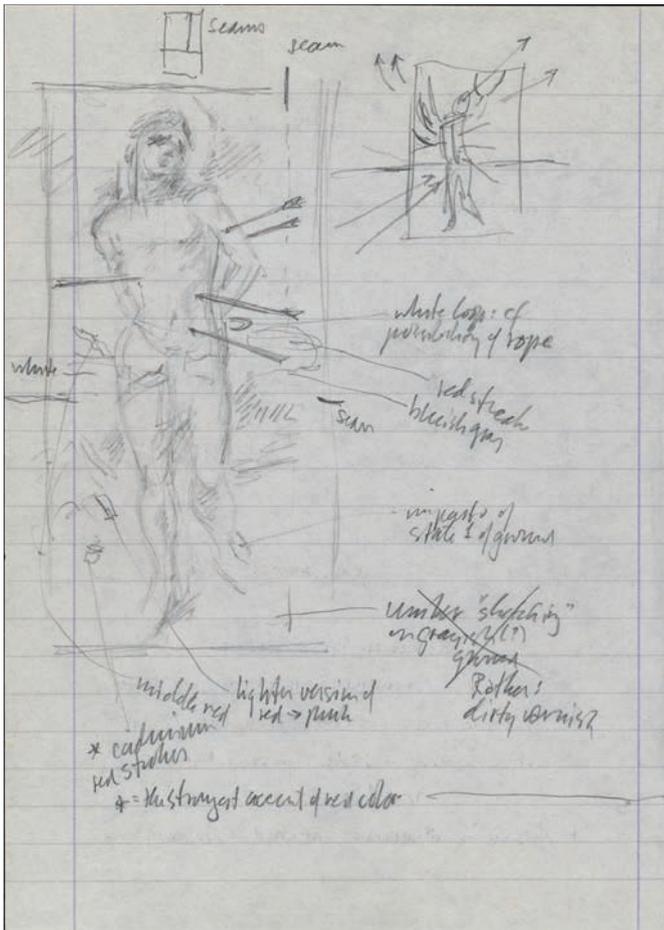


Fig. 0.7 David Rosand, *Notes and Sketches*. Photo by Matteo De Fina, courtesy of Save Venice Inc.

the support (fig. 0.7).¹² In 1982, he described the enthusiastic adoption of canvas supports in late fifteenth-century Venice—earlier than in other comparative artistic centers—as “a necessary premise for the Venetian transformation of the traditional oil medium, for the establishment, in fact, of an entirely new kind of painting.”¹³

Rosand was not the only modern art historian to observe that canvas was important for the distinctive development of Venetian painting. Indeed, in the decades since, the notion that it was significant for the emergence of the Venetian painterly style has become a veritable trope in the historiography of Renaissance art in Venice.

Yet, despite the trope, the field has lacked a convincing account of Venetian canvas supports and their artistic impact, and this is the first book dedicated to the topic. In its endeavor to treat canvas as a subject rather than a premise for art history, this book draws on and seeks to contribute to two slightly separate strands of previous research into Venetian painting.

The first strand is the rich, theoretically informed, art historical literature on the materiality of Venetian art; scholarship that has thoroughly established the tight connection between technique, style, and meaning in early modern Venetian artistic discourse, a mutually constitutive triangular relationship that is core to this book.¹⁴ It has predominantly concentrated on themes such as color (*colorito*) and the mark of the brush, to brilliant effect. In comparison, there is a glaring lack of similar interpretative attention to canvas. Despite the contributions of Paul Hills, Mary Pardo, Stefan Neuner, and Hanna Baro, who have offered thought-provoking analysis of canvas in articles or as part of larger studies, canvas often remains relegated to a slightly separate realm, of what one might call technical fact.¹⁵

The second strand is the research into Venetian painting materials that emerges from, or in proximity to, the art conservation sphere. It remains surprisingly distinct from the materiality literature, despite their ostensibly shared subject matter. The materials and techniques of Venetian painting have exerted great fascination for hundreds of years, and considerable scientific effort has been expended to understand them. The long-standing yearning to uncover Venetian art-technical secrets was already flourishing in the eighteenth century, as James Gillray’s cartoon (fig. 0.8), which lampoons Benjamin West for having been duped by a fake manuscript, cruelly underscores. Since then, research has continued apace, and the time is ripe for this book precisely

because there now exists such a substantial body of evidence resulting from the technical analysis of Venetian art. Conservators and technical art historians Caroline Villers, Joyce Plesters, Lorenzo Lazzarini, Jill Dunkerton, Paolo Bensi, Erasmus Weddigen, Valentina Piovan, and Chiara Scardellato, in particular, have offered important contributions to our knowledge about the canvases of Venetian paintings, as has weaver and researcher Helena Loermans.¹⁶ My own direct examination of a large corpus of paintings has been complemented by my critical analysis and synthesis of the results of numerous technical publications and studies on single works or groups of paintings. Michel Hochmann's *Colorito: La technique des peintres vénitiens à la Renaissance*, while a rigorous work of art history based on documentary research, also draws deeply on technical art history and the results of conservation studies, and it includes a significant chapter on supports and their preparation.¹⁷

Venetian Canvas, with its comprehensive focus on canvas, contributes to a relatively new tendency in early modern art history. Until very recently, it was highly unusual to come across art historical scholarship on Renaissance paintings that searched below their surfaces for its central subject. Most historians of early modern art act as though the images of their inquiry could be placed onto any foundation at all and be substantially the same. But a shift is taking place, even among scholars with no special link to the conservation sphere or to technical art history. Moving down the layers of the painting, David Young Kim's 2022 *Groundwork* brings a theoretical and lexical agility to the ground layer that shines a light on many issues regarding figure-ground relationships in Renaissance art, an interrogation continued from diverse perspectives in the 2025 edited volume *Between Figure and Ground: Seeing in Premodernity*. Elena Calvillo's and Christopher J. Nygren's respective



Fig. 0.8 James Gillray, *Titianus Redivivus; - or - The Seven-Wise-Men consulting the new Venetian Oracle, - A Scene in ye Academic Grove, No. 1, 1797*. Hand-colored etching, 530 × 404 mm. Royal Academy of Arts, London

work on painting on stone offer fascinating perspectives on relationships between images and their substrates, which, among other things, trouble prior assumptions about the rapport between representation and essence in the Renaissance.¹⁸

Despite this tendency, early modern scholars still tend to take canvas for granted. Historians of early modern Europe have largely shied away from tackling the catalyzing transformation in artistic practice that the adoption of canvas constituted, leaving an open field of questions about how, and with what consequences, canvas became the quintessential foundation

for modern painting. Paradoxically, it is almost as though the success of canvas painting as a technique has rendered the material itself invisible—the canvas picture by its very ubiquity prompting little interrogation and seeming to need no explanation.

AN INTERDISCIPLINARY GAZE

Venetian Canvas is situated at the intersection of art history, technical art history, and conservation. To address the complex phenomenon of early modern canvas, this book adopts two principal perspectives: that of the art historian and that of the paintings conservator. It interweaves those viewpoints while pulling in threads from the domains of ecological psychology, science and technology studies, and the history of material culture. The ambition is to offer a set of interdisciplinary advances that, although imperfect, would be unachievable while sitting comfortably within a single field, and that will open the door to future studies. By tightly intertwining research into the history and technical aspects of Venetian painting on canvas with interpretation of its pictorial poetics, it aims to provide a model for a more integrated approach to artworks, one that overcomes the divide that is still often drawn between making and meaning.

Venetian Canvas makes a sustained case for approaching paintings as material and visual archives of their own histories and provides tools for doing so. Art historians frequently refer to object-based research methods, by which they often mean close looking. This book uses the phrase somewhat differently, to indicate a practice that involves prolonged close observation but also incorporates elements of the types of examination habitually carried out by art conservators. Object-based research, in the sense intended here, begins with studying each

artwork visually for hours, first in normal light, then with a raking light to analyze the surface. Whenever possible, the work is assessed from the front and the reverse. Areas of abrasion and loss are sought out to see beneath the surface to the preparatory layers and support beneath and to begin to evaluate the condition of the painting. Close-up digital photographs with a measuring tool are taken so that the images can later be studied at different scales on the screen. After this direct examination, observations are strained through research into the physical history of paintings, especially in conservation and restoration archives. This includes carefully reading images and documents that record the material histories of artworks, such as photographs of old restorations, x-radiographs, infrared reflectography, microscopic images of cross sections and reports of pigment analysis, condition reports, and conservation treatment records.

This method requires no special equipment; it does, however, require access to artworks and to conservation archives. In this case, I benefited significantly from collaboration with the Gallerie dell'Accademia di Venezia and their conservation team, particularly Cristiana Sburlino, who spent hours looking at artworks with me and whose trained eyes contributed vitally to this project. A minor goal of this book is to explicitly emphasize the contribution of conservators, who have too often been the silent partner in the production of knowledge about artworks. Pushing back against that tendency can start by simply naming conservators whose findings are crucial to this book in the text, not just in notes or acknowledgments.

One vital goal of this type of object-based work is to identify the material and visual impact of damage, degradation, or alteration to try to disentangle what we see now from the appearance of the paintings in the early modern

period. This is not easy. Abrasion can often seem visually similar to a skipping brushstroke, but whereas a paint stroke will hit the top of a thread and skip an interstice between two yarns, abraded paint is rubbed off the top of a thread. Sharp breaks in paint marks might also look like a short mark, an expressive painterly gesture, but they ought to give pause, because the trained eye of the conservator knows that a soft edge suggests the fluid movement of paint loosely applied, while a crisp rupture hints at cracking and flaking.

Analyzing painting canvas requires particularly acute attention to the ways that artworks transform across time and are altered by human intervention. The most relevant such intervention is lining. Lining is a restoration procedure that aims to preserve paintings despite the inevitable weakening of canvases over centuries. It involves the application of a second piece of fabric to the back of the original painting.¹⁹ As such, it blocks physical and visual access to the reverse of paintings on canvas. Furthermore, in the eighteenth, nineteenth, and into the twentieth centuries the process typically involved putting the painting face down, pasting it all over the back with adhesive, and ironing it with a hot metal iron. This could cause serious damage to the surfaces of paintings, and indeed it has irretrievably flattened the texture of many. Since one of the main aims of this book is to precisely understand the nature of the relationship between supports and paint layers in early modern paintings, lining and lining damage create significant research obstacles.²⁰

As a historical project deeply invested in material precision, this book does not shy away from acknowledging this problem of material change; on the contrary, it aims to make a virtue of the challenge by modeling strategies for engaging with paintings as complex temporal palimpsests at a physical level.²¹ While studying

painting canvas brings the material instability of artworks to the fore in an extreme way, this is a difference in degree, not in kind, from an obstacle that many art historians face but all too rarely explicitly recognize.²² All artworks have altered materially since they were first created. To study them without attending to this is akin to reading an edited edition of Shakespeare without addressing its having been edited. This is, self-evidently, a particular problem for studies that put the interpretation of materials at the heart of historical work.

Carefully considering the change to artworks over time is one way to mitigate an element of risk inherent to an object-based methodology. This project prioritizes the material and visual testimony of artworks—paintings stand as its principal primary sources. Although it also draws extensively on written accounts from the early modern period, when there is no documented description of a practice or visual feature, I do not hesitate to identify and interpret it. This is both a statement of interest—as an art historian my fidelity and fascination lie with artworks more than texts—and an acknowledgment that artistic practice is often far ahead of art criticism. Since documents may be mute on key processes and materials for centuries, I resist the view that an absence of practices from the written record indicates they were either unimportant to practitioners or unnoticed by observers. Written evidence is interwoven with material and visual evidence in what follows, but always in supporting relation to the pictures. In some respects, this project relies on my own phenomenological encounter with the art object—hours spent in proximity to paintings did not just produce data, the kind of factual information that some scholars in the humanities may be skeptical about relying too heavily on, but also allowed prolonged meditation on the dynamic interaction of supports and

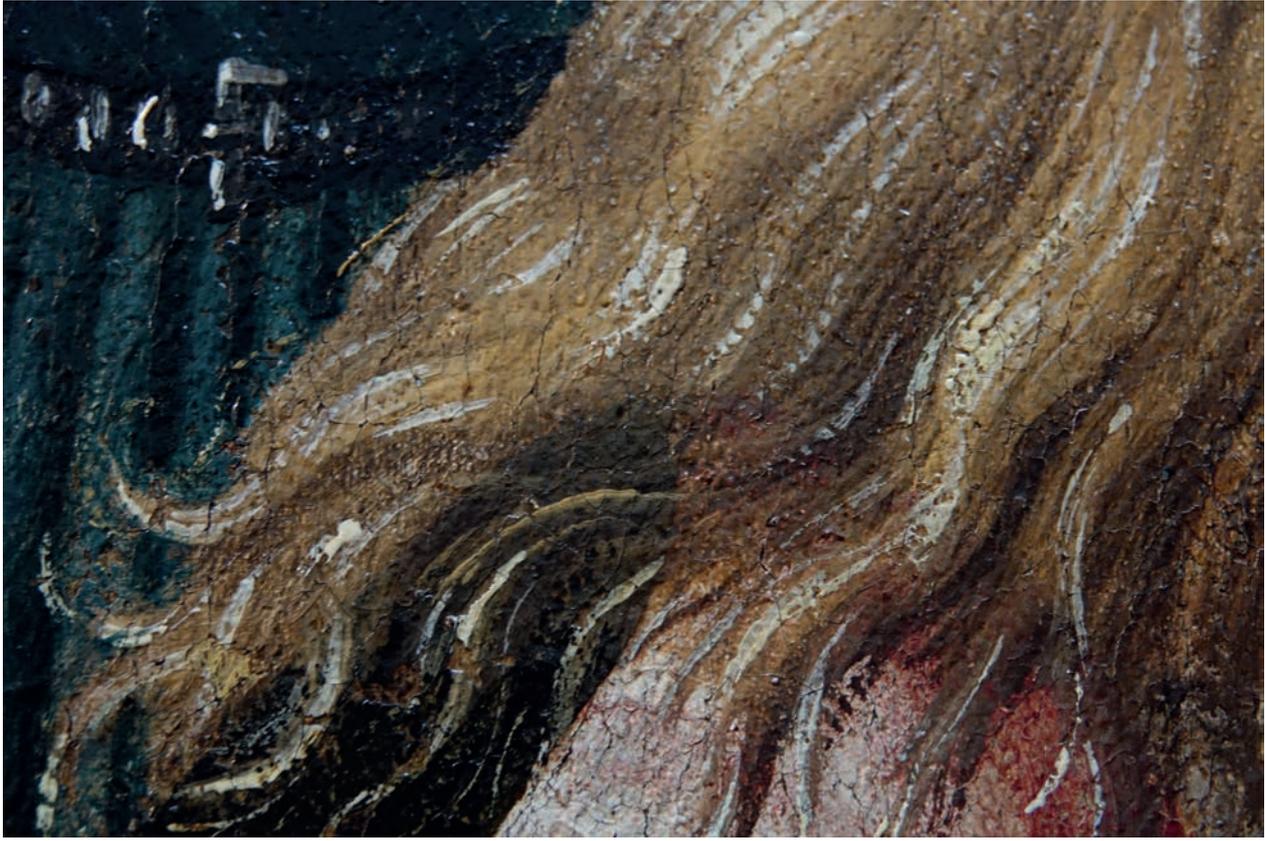


Fig. 0.9 Vittore Carpaccio, *The Return of the Ambassadors*, Gallerie dell'Accademia di Venezia. Detail of highlights in the messenger's hair

surfaces—fully accepting the risks this can entail for historicity. A sort of philology of material change lessens the hazard, as does, of course, evaluating findings within appropriate historical frameworks.

Portions of this book would be disciplinarily at home in the history of material culture. While practitioners of material culture studies do not agree on its definition, it involves the study of things or substances in their cultural contexts: it finds meaning in this material in relation to how it operates and is understood within a relational field of which it forms part.²³ Drawing a dividing line between this and art history is not straightforward, but they differ somewhat over their relationship with representation, the

interpretation of which is core to the history of art.²⁴ Canvas provides an ideal subject for tackling the dual nature of art as metamorphic image and obdurately physical stuff and, indeed, it is necessary to see it from these two viewpoints. On the one hand, this book seeks to understand how canvas contributes to representation and illusion in images—how, for instance, the ripples in a piece of linen can imitate the shimmer of light on hair (fig. 0.9). On the other hand, it considers canvas as a material of interest for its properties and in respect to other things and persons, with a constant awareness of paintings as hefty objects taking up space (fig. 0.10). It also finds common ground with historians of material culture who frequently eschew narratives about great artists



Fig. 0.10 Rolling up Vittore Carpaccio's *Miracle of the Relic of the Holy Cross at the Rialto Bridge* for transportation to the conservation laboratory, 2022. Gallerie dell'Accademia di Venezia

in favor of telling the stories of the lesser-known makers or users of material things. While Titian looms large in this study, as he did in early modern Venice, the project aims to push gently against the reification of the single Renaissance genius by focusing on the material and processual factors that contributed to Titian's extraordinary paintings and those of his fellow painters.

This book also takes inspiration from the history of material culture to discuss the manufacture and sale of canvases. If, as I maintain, the very specifics of the weights and weaves of Venetian canvases count in the outcome of celebrated paintings, then how artists obtained them, how they were sold, and how they were made become questions with significant art historical relevance. When Lorenzo Lotto painted an altarpiece on one of his own bedsheets,²⁵ he highlighted the connection between painting canvas and everyday cloths: this book takes up the invitation to study the array of fabric types listed in the inventories of

textile merchants. When Gentile Bellini took up a finely woven piece of linen fabric to serve as the support of his *Il Beato Lorenzo Giustiniani* (1465) (fig. 0.11), he drew on (in both senses) the skilled labor of spinners and weavers: despite limitations in the currently available evidence, this book wants to underline their critical contribution.

In its endeavor to locate art historical meaning in the stuff of canvas, this book also draws on a specific theoretical apparatus. Ann-Sophie Lehmann's theorization of materials is essential, in part thanks to her rejection of an excessive abstraction present in much of the art historical writing on materiality, which tends to distance the analyst from artworks, materials, and making rather than bringing them closer.²⁶ Lehmann's useful "toolbox" for the art-theoretical interpretation of materials introduces, among other frameworks, James Gibson's theory of material affordances, which can, as she puts it so clearly "be described as the restriction or encouragement of certain

actions that result from the specific properties of a material.”²⁷ Crucially, affordances are both inherent and nondeterminative—they are there whether we recognize them or not, but in some cases their exploitation may be culturally informed. As Gibson explained, a mailbox only “affords letter-mailing to a letter writing human in a community with a postal system.”²⁸ The theory of affordances helps to take seriously the experience, expressed by art makers both in the early modern period and today, that materials and tools influence the outcome of artworks both through their suggestions and their resistances. Furthermore, affordances are a kind of meaning. For instance, in Gibson’s explanation of the way that chairs encourage us to sit in them, he writes: “If the surface properties are seen relative to the body surfaces, the self, they constitute a seat and have meaning.”²⁹ His work thus assists in thinking expansively about the kinds of meaning substances and tools have for artisans. People who are engaged daily in making things are deeply attuned to the invitations to action posed by objects or materials, and this may often be their primary meaning for an artist.

Gibson’s theory of material affordances has been indispensable for analyzing the way that canvas influenced the process of painting. Thinking about what canvas afforded Venetian artists helps tweak habitual anthropocentric and hylomorphic models of causality in which idea, action, and material result necessarily follow each other sequentially.³⁰ Furthermore, affordance theory is useful for thinking about supports because the substrates of paintings are not always stridently visible: they impact art making and the appearance of images in sometimes subtle ways, and to comprehend the effects of canvas requires sensitivity to how it can suggest certain actions and thereby encourage certain processes resulting in certain visual outcomes.

The theory of affordances softens the divide between subject and object, shifting attention to what things and persons do in interaction. This goes further in actor network theory, or ANT, with its willingness to view materials as active agents (or actors), its emphasis on a web of relationships between humans and non, and its provocation to aggressively revise assumed hierarchies of causality. Bruno Latour’s idea of a distinction between mediators and intermediaries is the most critical contribution of ANT to this study. An intermediary, in Latour’s terms, is something that carries meaning without changing it. It is a neutral conduit, and defining its inputs is enough to define its outputs. By contrast, a mediator alters the meaning it transmits. Latour does not argue that something either is, or is not, a mediator. He suggests that the analyst should try to identify when a given entity is *behaving* as an intermediary or as a mediator, or when it is productive to analyze it as such.³¹ I am particularly interested in instances when canvas can be seen acting as a mediator of representation—where one can catch it altering, inflecting, and informing the image it conveys, such that without its rich material nuances, that specific image with its particular meaning would never have existed. Furthermore, by showing how canvases contributed to the development of cinquecento style, I demonstrate that without their material characteristics and resulting affordances, Venetian painterly language would not have taken the historical form that it did. Canvas was a transforming factor in the history of Venetian art: a true mediator.³²

ANT has been critiqued from the historical point of view for inadequately attending to change; while it may sometimes lead to perceiving change as having happened in a less linear fashion, this is no bad thing. More troublingly, notions of nonhuman agency have



Fig. 0.11 Gentile Bellini, *Il Beato Lorenzo Giustiniani*, 1465. Distemper on plain weave canvas, 221 × 155 cm. Gallerie dell'Accademia di Venezia

been criticized as insensitive (or worse) toward power relations among humans, and there is ethical risk in any framework that posits equivalence between a person and a rock.³³ Aware of the risk, this book adopts the position that materials have agency, but this is not exactly the same type of agency humans have. In this, I draw on the work of Andrew Pickering, who sets out a clear position on the nonequivalence of the agency of humans and materials in *The Mangle of Practice* while insisting on the importance of recognizing material agency for understanding how scientific practice takes place and produces knowledge. Pickering's framework posits a "dance of agency" that takes place between humans and nonhumans, where each is mutually modifying in a temporally emergent process that he calls the "mangle of practice." Speaking with Pickering, I define material agency as meaning that materials *do things*—in that sense, they act in the world.³⁴ Shifting the lens from the world of science to the practice of making paintings, we can say that artworks also emerge from a dance of agency between artist and materials when material agency is understood in this precise manner as the doing of things.³⁵ Material doings are readily observable at the level of artistic process: when a fluid wash of watercolor paint dribbles all down a page, flooding regions of other color and shifting their hue; when varnish sinks into the oil colors of a painting and seems to disappear or, alternatively, makes the whole surface shine; when a sculptor hits a piece of marble with a hammer but the stone does not break and stubbornly resists his force; or when a ceramic bowl emerges from the oven and the maker realizes it has cracked all over in response to the heat.³⁶ Artists know that sometimes materials *do* what they want, and sometimes they *do not*. Canvas can, as this book will demonstrate, be shown to do things during the

painting process and to have done things to Venetian art.

This does not imply animism or mean that materials have intention, whereas humans do, importantly, have intentions. The aspect of intention associated with human agency can present a block to allowing agency in materials, but if, with Pickering, one recognizes that material agency and human agency are nonequivalent precisely because of the importance of intentionality in the actions that persons take, the intensity of the obstacle lessens.³⁷ This leaves us with the problem of intention and, for this book, specifically that of artistic intention with regard to canvas supports. Artists did not always choose their supports. Sometimes they did, and some documents indicate artists paid attention to the types of canvas they used. But often, it is impossible to know exactly how much choice they had in the selection of their canvases. On the other hand, the paintings themselves provide ample evidence of painters paying careful attention to the material qualities of their canvases and the pictorial effects they could achieve with them. This book does not insist on a hard form of artistic intention with regard to canvas, in the sense of a fixed prior plan to use a certain type of canvas to achieve specific, predictable, results. Instead, it hews closer to Michael Baxandall's positing of an "intentional flux" that takes place during artistic practice. As Baxandall explains it, while an artist sets out with certain aims, "in painting a picture the total problem of the picture is liable to be a continually developing and self-revising one. The medium, physical and perceptual, modifies the problem as the game proceeds. Indeed, some parts of the problem will emerge only as the game proceeds."³⁸ In Baxandall's account, even accidents can be considered intentional when an artist accepts

them: each brushmark that we see in the picture “lets us assume a decision that it will do, or will have to do,”³⁹ and whether that decision is made carefully or unreflectively, it still comes under the purview of his expansive view of intention. Similarly, and as will be explained again in chapter 4 with the benefit of examples, whether or not a sixteenth-century painter chose the canvas he worked on, when he stepped away definitively from his picture, he made the decision that it—and all the marks he had layered over the canvas, in dynamic interaction with it—would do. The painter, at the very least, accepted whatever had emerged in the dance with his materials, and from that one can deduce a form of intention behind the pictorial result. The explanatory framework of intentional flux aims to account for the position of artistic intention in relation to process. By contrast, a static concept of fixed intention, which an artwork either achieves or fails to live up to, would “deny the encounter with the medium.”⁴⁰ This book is precisely concerned with how, in the processes of artistic practice, canvas came to operate as a medium, how the painter’s encounter with canvas transformed each painting and, with it, the history of art.

FOUR HUNDRED YEARS AND COUNTING

While this book aims to transport the reader to a very different place and time, artists at work today are still interrogating the significance of canvas, and in doing so, some of them shine bright light on the tradition that this book explores while transforming it once again for the future. Analia Saban uses canvas as a medium for dissecting and reconfiguring painting orthodoxies. She made the *Painting Ball* (48 *Abstract*, 42 *Landscapes*, 23 *Still Lives*,

II Portraits, 2 *Religious*, 1 *Nude*) (fig. 0.12) by unraveling paintings and rewinding them into a new artwork. The paradoxical nature of this piece, that deconstructs and reconstructs simultaneously, is particularly evident from a work-in-progress photo documenting her artistic process: in it one sees a canvas at once as representation, as the carrier of an image, and as a bundle of yarns (fig. 0.13). Michael Armitage’s oeuvre reflects with striking acuity on what he rightly calls the “very specific history” of canvas painting (fig. 0.14).⁴¹ In his paintings, he has replaced linen canvas with supports stitched together from sections of textured cloth crafted by the Baganda people of southern Uganda from the bark of the ficus tree, called lubugo, which translates to shroud, and is used for funeral cloths, as well as ceremonies and clothing. He is eloquent about how adopting this fabric as a support “changed pretty much everything that [he] was doing,” in terms of process: driving him to experiment, spending years engaged in trial and error, testing new ways of painting such as thinning his medium and rubbing down his surfaces.⁴² The artist has said he chose this novel support precisely to break with the tradition of painting on canvas, which he identifies with Western art history.⁴³ Meanwhile, he often draws on the heritage of European art, including Titian, who he evoked specifically in his *Flaying of Marsyas* (2017). Even as Armitage’s choice of lubugo bark successfully destabilizes and subverts his complicated relationship to the art historical canon, his supports illuminate the very tradition he is distancing his work from. Armitage’s profoundly meaningful substrates, in their rough textures, visible seams, and tears, emphasize material features of traditional canvases that we have learned (through overexposure) to overlook but that this book will bring back to the fore. His works make a point that art historians too easily



Fig. 0.12 Analia Saban, *Painting Ball* (48 Abstract, 42 Landscapes, 23 Still Lives, 11 Portraits, 2 Religious, 1 Nude), 2005. Oil, acrylic and watercolor on canvas. Courtesy of the artist

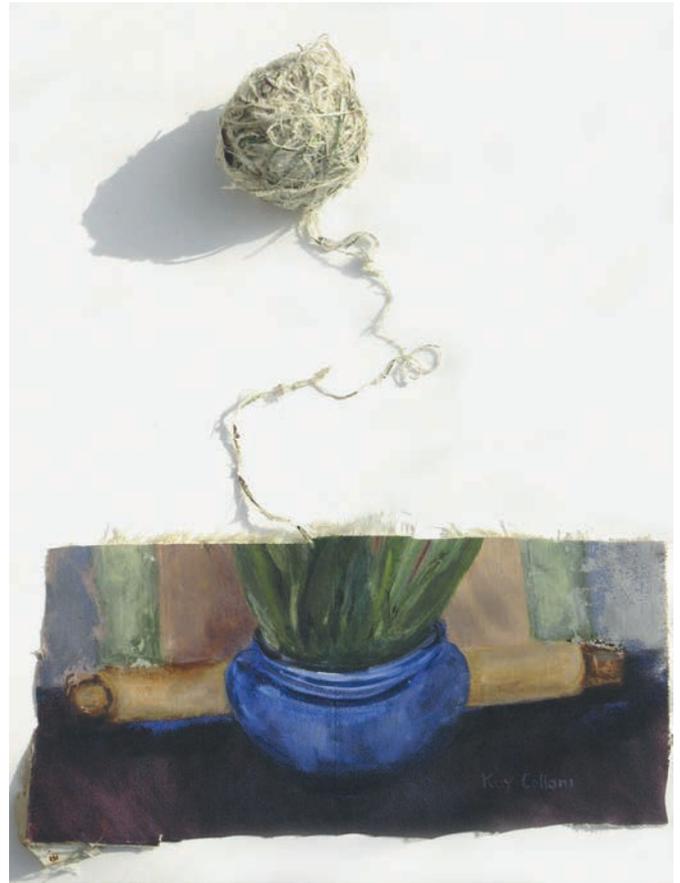


Fig. 0.13 Analia Saban, *Painting Ball* as a work in progress, 2005. Courtesy of the artist

forget but that artists do not—what you paint on changes what you paint.⁴⁴

FROM SUPPORT TO SURFACE: STRUCTURE OF VENETIAN CANVAS

This book unfolds in stages, starting, like the paintings it studies, with unpainted cloth, before gradually shifting focus toward process, analyzing the appearance of pictures and interpreting the messages they transmit. After the first chapter, it also progresses roughly chronologically, taking the reader from quattrocento canvas

as a substitute for wall, panel, or tapestry, to cinquecento canvas as an expressive medium participating in pictorial discourses of the *pittura di macchia* and the *non-finito*. Each of the chapters adopts a different lens and emphasizes different kinds of source material to trace the history of a fundamental change in artistic practice. Ultimately, the canvases of early modern Venetian painting will emerge as catalyzing agents in the achievements of the Venetian Renaissance.

Chapter 1 lays the foundation for the rest of the book. It sets out a working understanding of



Fig. 0.14 Michael Armitage, *Pathos and the Twilight of the Idle*, 2019. Paint on lubugo bark cloth, 330 × 170 cm. Courtesy of the artist

what early modern canvas was, in material and linguistic terms, as well as briefly addressing the dual challenges of translation and disciplinary terminology. From there, it explores the manufacture and supply of canvas in the city, presenting the different kinds of canvas fabrics available on the Venetian market and used by Venetian artists. It also aims to introduce canvas as the product of a skilled craft, the creation of men and women artisans without whose work the painterly exploration of its pictorial potential would have been impossible.

Some painting on canvas was carried out across the medieval period, though it was a relatively minor art form compared to wall or panel painting. As a necessary prelude to discussing the revolutionary impact of canvas in Venice from the late fifteenth century onward, chapter 2 reads the rare surviving examples of painting on canvas in the Veneto before 1475 in conversation with instructions for painting on fabric in art-making treatises to illuminate crucial links between older practices and later Renaissance developments. In so doing, it stresses the importance of northern European *tüchlein* works for Venetian artists, and the deep relationship between painting on canvas and the textile arts. Most importantly, it argues that material incompatibilities between textile supports and rigid paint media created problems for fifteenth-century painters and highlights the challenges posed by the fragility of objects.

The vital art historical stakes of canvas for Venetian art emerge clearly in works produced from the late fifteenth century. Chapter 3 tackles that critical period of transition, concentrating on collectively commissioned *teperi* cycles: large-scale narrative paintings that substituted canvas for fresco. In material terms, these demonstrate both continuity with regard to earlier painting practices and catalyzing experimentation that prefigures the dynamics of the later sixteenth century. Vittore Carpaccio's *St. Ursula Cycle*

emerges as a testing ground for the exploration of the pictorial possibilities of canvas. The chapter then turns to the problem of cause—did Venetian artists abandon fresco because of Venice’s unique climate, as often stated? To address this requires a more precise approach. Venetian painters did not entirely abandon wall painting. Rather, they replaced fresco with canvas in the later fifteenth century for a specific kind of picture: narrative *istorie* for the inner walls of institutional buildings. Given this, the question is not about whether the damp air of Venice rendered wall-painting techniques impossible, but how a constellation of environmental and sociocultural factors combined to encourage the use of canvas supports. Finally, this chapter makes the point that the shift to painting on canvas in Venice was hardly a single smooth transition. The adoption of canvas for altarpieces follows a distinct timeline and must be linked to different causal factors. There were multiple strands to this historical process, and the narrative of the shift from fresco painting to canvas painting and the transition from panel supports to canvas supports bifurcate in critical ways.

From the 1540s onward, Venetian artists radically explored the painterly possibilities of canvas. Simultaneously, figures like Titian, Veronese, and Tintoretto developed a new artistic language, the painterly manner so critical to the future of European painting. Chapter 4 investigates the relationship between the facture of Venetian paintings and the fabric of canvas supports. It shows that not only canvas, but different types of canvas, were vital to the dynamic, textured surfaces of cinquecento pictures. It follows the threads of canvas in relation to the dynamics of brush and paint and analyzes paintings as structures born through a reciprocal dialogue between the artist and his materials. In so doing, chapter 4 interrogates how canvas acted within paintings to produce

visual effects. By relating these effects to art critical discourses, the chapter shows how canvas functioned within the frameworks of the *colorito alla Veneziana* and the *pittura di macchia*. Using select examples, it also demonstrates that canvas supports can be productively analyzed as mediators of representation in individual artworks.

Chapter 5 brings the reader to the end of the sixteenth century with a set of extreme cases in which Titian, Tintoretto, and Veronese pushed the boundaries of painting on canvas. It brings to light the complexity of late sixteenth-century support construction and raises questions about why they were created in the ways that they were. The chapter suggests that these examples may be best understood within the framework of the *non-finito*. For one, the existence of artistic license for allusive amorphous imagery, rough surfaces, and virtuosic displays of the making process in the final artwork helps explain why artists could be bold enough to allow seams or even patches to intersect their paintings and why they increasingly often used supports made from heterogenous fabrics. For another, in a practice with strong parallels to the use of the slow-drying properties of oil to freely revisit images during drawn-out, open-ended painting processes, artists utilized canvas to radically change the composition of their pictures while they were working on them. Thinking hard about canvas may offer us concrete tools for better comprehending how individual paintings relate to the thorny subject of finish and completion in Venetian art and art history.

While invested in the theorization of materials, this book largely resists metaphorizing them. Holding back from rapid recourse to metaphor is a choice to counteract the art-historical tendency to transform materials immediately into symbols. Yet, in an early modern context in which the acts of spinning and weaving and the material of linen

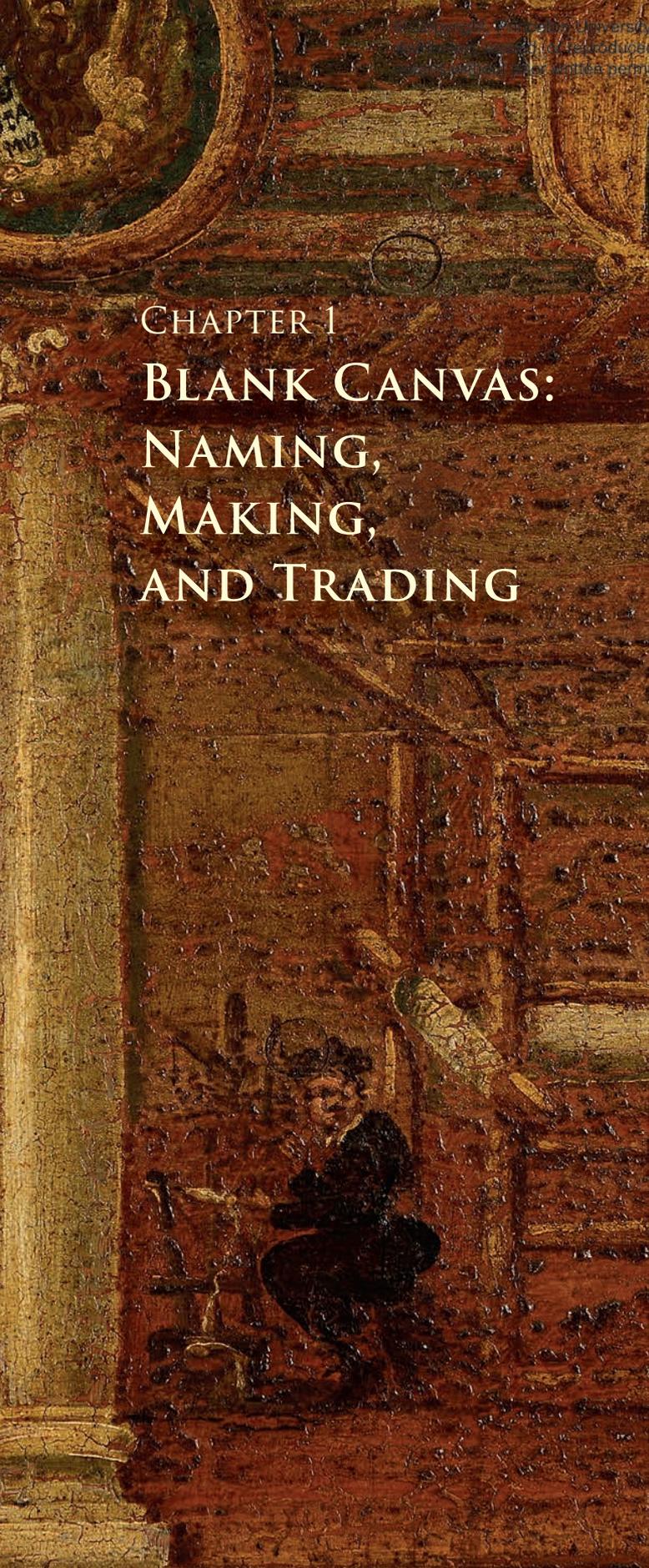
were highly charged with cultural associations, canvas can be situated within a dense field of signification. Shifting to a more speculative register, the conclusion explores two artworks in which the support resonates powerfully with the iconography in the image: Titian's representation of a relic on an altar, painted on a fabric-type that

typically served as an altar cloth, and Tintoretto's figuration of the myth of Minerva and Arachne that revels in the depiction of the *téchne* of weaving that supports the picture itself. These irresistibly rich paintings hint at some of the beautiful possibilities that unfurl as a result of attending to canvas.



TOLELA. FV. RE NOVADA IN. TENPO. DE. M. ZVANE
DI. T'ESSERIDA

For general queries, contact info@press.princeton.edu



CHAPTER 1
BLANK CANVAS:
NAMING,
MAKING,
AND TRADING

IN 1549, LORENZO LOTTO AGREED to paint an altarpiece depicting Saint Francis, Saint John the Baptist, and angels for the Church of Santa Maria in Posatora, Ancona. The patrons required that he supply the canvas himself, and he did so, by repurposing one of his own old bedsheets.¹

This secondhand sheet served as the support for the altarpiece, an instance that vividly illustrates the connection between painting canvas and the fabrics of everyday life in early modern Italy. So, too, can one of Titian's most celebrated group portraits, *The Vendramin Family* (ca. 1540–45) (fig. 1.1), which was executed on a support made from a diamond-weave-patterned linen fabric, a textile that typically served as a tablecloth or, alternatively, an altar cloth.

Just as Venice's famous pigment trade enriched the palettes of painters, its flourishing cloth market made an array of diverse canvas types available for artists to use as picture supports. The abundance of the textile trade was a *sine qua non* for Venetian artists' experimentation with the pictorial possibilities of painting on canvas, since the material structures of these varied fabrics—their weights, weave patterns, thread counts, roughness (or smoothness), and so forth—contributed vitally to the facture and pictorial poetics of Venetian art. Nonetheless, and importantly, canvas in Renaissance Venice was not made or supplied with painters in primary view. Instead, when artists and their patrons bought painting canvas, they engaged in a sophisticated and complex textile market producing fabrics for a wide range of purposes such as domestic goods and clothing. This chapter invites the reader to enter that world of

left *Sign of the Tesser da Tela*. Detail of fig. 1.16

BOSELIN. GASTALDO E
TELA. M.D. 170



Fig. 1.1 Titian, *The Vendramin Family, Venerating a Relic of the True Cross*, ca. 1540–45. Oil on lozenge weave canvas, 206.1 × 288.5 cm. The National Gallery, London

textiles, considering canvas first and foremost as a cloth prior to any application of paint through discussion of how artists acquired the fabric, the varieties of canvas available, and an introduction to three guilds involved in the manufacture and sale of fabrics. Doing so provides a deeper understanding of canvas at the material level and provides a foundation for the chapters that follow.

These cloths, these canvases, were made and sold by men and women in whom art history has shown little interest. While numerous scholars have studied the *vendecolori*, attention to the

makers and sellers of canvas has been limited.² This may be because the written historical record provides scant satisfying sources for recuperating their lives and labors. It is only occasionally possible to prove that a certain merchant traded fabric that went on to become painting canvas, and even more rarely that they sold the canvas that supported a specific artwork. With regard to the spinners and weavers who made canvas, the evidence connecting them to painting canvases is even patchier. There are furthermore no biographies of workers in the canvas trade that would bring them to life as individuals.

Yet the products of their labor—the canvases that support the paintings in our museums—remain as a material archive, a physical trace of handwork done that testifies to their existence, skills, and organization.³

Animated by the heterodox belief that everyone who contributed materially to an artwork has a place in its history, as indisputably essential agents in the network that gave rise to it, the makers and sellers of canvas fabrics are included here to the extent possible given the current state of knowledge.⁴ In this chapter, they are introduced mainly through attention to a selection of guilds that produced the kinds of fabrics used as canvases in Venice, viewing them perforce collectively, through archival documents. This is the first time that the makers of canvas have been framed as part of the history of art, but it is hoped that this gesture will spur future research, since they deserve more attention than it has been possible to give them within current evidential limitations. After all, it was their work that gave canvases the characteristics that, this book argues, transformed Venetian art.

WHAT IS CANVAS? PART 1: VELÁZQUEZ'S BEDSHEETS

Before going further, it is necessary to develop a working understanding of what canvas *is*, or more properly, *was* in early modern Venice. This query is deceptive in its simplicity—part of the thrust of this book is that the commonly held belief that canvas is a self-evident and ahistorical category requires problematizing. By the end of this book, the notion of “canvas” ought to be substantially altered. Nonetheless, a working comprehension is necessary from the outset, and this chapter thus begins by addressing canvas with a two-pronged—linguistic and material—approach: establishing a lexicon for interpreting

documents about canvas and translating relevant early modern Italian terminology into English, then introducing the origins of canvas in processed plant fibers and the physical properties that contributed to its potential as a painting support in general terms. It then dives into a historical investigation of the canvas trade in Renaissance Venice.

To investigate canvas in historical terms, it is imperative to pay close attention to the shifting words used to describe it. One inadvertently comic episode highlights the perils of early modern terminology around canvas. Toward the end of Baltasar Gracián’s seventeenth-century masterpiece *El Criticón* (1651, 1653, 1657), Critilo and Andrenio voyage toward the Island of Immortality in a fantastical boat built of incorruptible cedar wood, powered by gilded oars with the wind filling sails made from the canvases of Timanthes and Velázquez.⁵ In a clear reference to the art of painting, Gracián asks us to imagine a vessel traversing the seas under sails made of artworks by the greatest painter of ancient Greece and of his own day, the ultimate decoration for a boat of immense, impossible beauty. This evocative image is rendered humorous in a mistranslation in the Italian version by Giovanni Pietro Cattaneo, published in 1685. Cattaneo translated the phrase as “the sails the bedsheets of the ancient Timanthes, and of the modern Velázquez.”⁶ The image is not quite the same, since Cattaneo tells his reader to envisage a boat with sails made from the bedsheets of the painters rather than their artworks. As Lotto’s altarpiece shows, it was not impossible that an early modern artist could paint on a bedsheet. Yet the translator made an error by taking the Spanish *lienzos*, meaning picture canvas in early modern Spain, and rendering it as *lenzuoli*, which explicitly meant bedlinens in early modern Italy, thereby undermining the scene’s poetic gravitas.

(continued...)

INDEX

Note: Institutions are in Venice unless otherwise indicated.
Page numbers in italic type indicate illustrations.

- abrasion, of painted canvas, 11, 96, 108, 145, 146
Accademia della Crusca, Florence, 26, 136
actor network theory (ANT), 14
affordance theory, 13–14
agency, of materials, 14, 16–17
Agnolo, Antonio di Dino d', 35
Alba, Laura, 39
Alberti, Leon Battista, 212
Alcherio, Giovanni, 55, 80, 85–88
Alemagna, Giovanni d', and Antonio Vivarini, *Virgin Enthroned and Child in the Heavenly Garden with the Doctors of the Church, Saints Augustine, Ambrose, Jerome, and Gregory*, 66, 67–68, 67 (details), 68 (detail of canvas), 88, 89, 102, 115
Aliense (Antonio Vassilacchi), 34
Allerston, Patricia, 36
Alpers, Svetlana, 227
altar cloths, 21, 23, 42, 216–17, 219–21, 223
altar curtains, 61, 63
altar frontals, 76–78
altarpieces, 13, 20, 23, 25, 35, 48, 57, 60–61, 63, 69, 93, 110, 120–24, 126, 128–29
anconas, 63, 83
Anderson, Jaynie, 116
Andrea da Murano, *Crucifixion*, 110, III, III (detail of seam), 112 (detail)
Anonimo di Tizianello, 209
Apollonia, Saint, 49
Arachne, 224, 226
Armenini, Giovan Battista, 162
Armitage, Michael, 17; *Pathos and the Twilight of the Idle*, 17, 19
Arslan, Wart, 63
arte dei depentori (painters' guild), 75
arti. See guilds
Augurello, Giovanni Aurelio, 78
auxiliary supports, 124, 159–60, 197
Ayamonte, Marquis of, 185, 194, 209, 213

Baldinucci, Filippo, 5–6
banners, 56–57, 59–60, 71, 83, 115–16
Barbarigo, Augustin, 35
Baro, Hanna, 8, 118
Basilica of San Marco, 102
Basilica of Santa Maria della Salute, 74, 78
Bassano, Francesco, 26, 33–35, 39, 181, 195
Bassano, Gerolamo, 197
Bassano, Jacopo, 26, 33–35, 39, 139, 152, 176, 181, 197; *The Baptism of Christ*, 139
Bastiani, Lazzaro, 112, 128; *The Baptism of Christ*, 141; *The Communion of St. Jerome*, 93, 94, 95–96, 97 (detail of canvas); *Donation of the Relic*, 99; *The Funeral of St. Jerome*, 93–96, 95, 96 (detail of abrasion)
Baxandall, Michael, 16–17, 182
bedsheets, 13, 23, 25, 35, 41, 75
Bellini, Gentile: and canvas painting, 40, 97, 118; Carpaccio compared to, 111; and the Great Council Hall of the Ducal Palace commission, 7, 91; Mantegna and, 65, 97; paint used by, 74
Bellini, Gentile, works: *Il Beato Lorenzo Giustiniani*, 13, 15, 40, 60, 71–72, 72 (detail), 73 (detail), 74, 88–89; *Miracle at the Bridge of San Lorenzo*, 99, 116; *Miracle of the Relic of the Holy Cross at the Bridge of San Lorenzo*, 59–60, 59, 59 (detail), 97, 98 (detail of canvas), 98 (detail); *The Miraculous Healing of Pietro de' Ludovici*, 97, 99, 99, 99 (detail of canvas), 101; *Procession in Piazza San Marco*, 98, 100, 102, 101 (verso), 116; Sala del Maggior Consiglio commission, 118; *Votive Picture of Doge Agostino Barbarigo*, 118
Bellini, Giovanni, 65, 78, 93, 97, 112; *Pietà*, 71; Sala del Maggior Consiglio commission, 118
Bellini, Jacopo, 6, 59, 65, 75, 97, 116; *Crucifixion*, 60–61, 61, 66
Bellini family, 6, 65, 71, 92, 97, 101
Bensi, Paolo, 9, 120
Bernardino of Siena, Saint, 60
Between Figure and Ground (edited volume), 9
Bianchi, Alvise de, 51
Bilivert, Giovanni, *Allegory of Vanitas*, 42
Boccaccio, Giovanni, 27, 210, 224
Bodart, Diane, 136
Boerio, Giuseppe, 27, 39
Bonsignori, Francesco, *Madonna Enthroned with Saints and a Female Donor*, 66
Borromeo, Federico, 131–32, 170–71, 177, 183
Boschini, Marco, 93, 139, 169, 173, 203–4
Boselin, Zuane, 45
botteghe (workshops/shops), 26, 37–38, 50, 58, 87
Bouts, Dieric, 69–71; *Adoration of the Magi*, 69; *The Annunciation*, 69; *The Crucifixion*, 69; *The Entombment*, 56, 56, 69–70; *The Resurrection*, 69; *The Virgin and Child*, 70, 70
Bozza, Bartolomeo, 35
Bronzino, Agnolo, *A Young Woman and Her Little Boy*, 169
Brown, Patricia Fortini, 115

- Caliari, Carletto, *Head of a Man*, 176
- Calvillo, Elena, 9
- Calvino, Italo, vi
- Canovetta, Italy, 35, 41, 235n59
- canvas: artists' selection of, 35, 105–7, 112, 126, 180–82, 249n115; characteristics of paintings attributable to, 3, 7, 14, 20, 41–42, 72–74, 101, 107–10, 131–33, 145–69, 177–79, 182–83, 205, 207–13, 221–22; coarsely vs. tightly woven, 3, 27, 41, 52, 55, 71, 77, 87, 101, 126, 140, 141, 143, 149, 153, 160–61, 177, 179, 183, 190, 208 (see also density (thread count) of); color of, 41; composite, 185–89, 194, 197–213; density (thread count) of, 68, 71, 85, 87, 88, 97, 140, 142, 183 (see also coarsely vs. tightly woven); dual approach to, 12; European adoption of painting on, 6; exposure of, in paintings, 1, 40, 70, 72–74, 77, 78, 96, 131, 139–40, 165, 169–77; geographical sources of, 44–45; makers of, 24–25, 45–50; manufactured sizes of, 93–94; material characteristics of, 5, 193–94; as metaphor, 20–21, 216–27; and the non-finito, 183, 186, 212–13; object-based research methods used for, 10–12; paper compared to, 176; patrons' supplying of, for commissions, 32–35, 39, 59, 126, 159; from plant to frame, 28–31; portability of, 196, 232n17 (see also canvas painting: rolling or folding of); priming of (see gesso, and other ground treatments); production and sale of, 13, 23–25, 28–32, 36–50; repurposed from everyday uses, 13, 23; sailcloth compared to, 50–53; scholarship on, 7–17; sellers of, 35–38; symbolic potential of, 216–27; transformations in painting made possible by, 3, 5–10, 14, 16; types of, 39–41; Venetian painting and, 3, 5–8, 14, 16, 20, 50, 92, 120; vocabulary related to, 25–27, 51, 233n15, 233n18; width of, 93–95, 149. See also canvas painting; canvas trade; herringbone weave; linen; stretching of canvases; tabby (plain) weave; twill weave
- canvas painting: banners as important use of, 56–57, 59–60; benefits of, 57, 113–20; climatic effects on, 123–24; cloth/textiles as theme or subject matter in, 71, 76–78, 80, 115–16, 134, 165, 168–71, 199, 216–27; and color, 143–69; commonly considered to be banners, 57, 63; conservative/traditional approaches to, 63, 84, 124–26; decorative textiles in relation to, 57, 75–80; early modern sources on, 80–87; effects of time on, 11, 30, 32, 70, 72, 96, 108, 126, 198, 210, 215, 224; egg tempera used for, 56–58, 61, 65, 68, 83, 84, 88, 110, 118, 143, 198; fragility of, 19, 57, 69–74, 80–87, 118, 200; Gentile Bellini's central role in, 97; gilding on, 55, 57; glue or gum colors used for, 61, 65, 69–74; “invention” of, 5–7, 57–58, 88–89; Mantegna and, 64–66; media used for, 56; northern European, 19, 56–57, 69–74; off-site creation of, 116–17; pre-1475, 55–89; present-day artists' interrogation of, 17; preservation of, 57, 82–85, 87–88, 117–18, 124, 126; reparability of, 200; rolling or folding of, 13, 30, 55, 65, 72, 82, 83, 87, 191, 192, 194, 196–97 (see also canvas: portability of); seams as a concern in, 17, 20, 42, 94–95, 98–99, 111, 124–25, 126, 128; storage of, 197; Titian's *Doge Andrea Gritti* as exemplar of, 134, 154–69; visibility of the substrate in, 1, 40, 70, 72–74, 77, 78, 96, 131, 139–40, 165, 169–77. See also experimentation and innovation in canvas painting; gesso, and other ground treatments; oil painting; stretching of canvases
- canvas trade: anonymity associated with, 24–25; in Venice, 23–25, 36–50
- Carpaccio, Vittore, 93, 102–12; *The Ambassadors Depart*, 103, 103, 112; *Apotheosis of St. Ursula and Her Companions*, 102, 106; *The Apparition of the Crucifixes of Mount Ararat in the Church of Sant'Antonio di Castello*, 103, 105; *The Arrival of the Ambassadors*, 103, 104, 105, 105 (diagram), 106, 116; *The Arrival of the Pilgrims in Cologne*, 103, 103, 103 (detail of canvas), 111, 118; *Assumption of the Virgin*, 121; *The Dream of St. Ursula*, 102, 103; *The Martyrdom of the Pilgrims and Funeral of St. Ursula*, 103, 104, 106, 108 (detail), 112; *The Meeting and Departure of the Betrothed Couple*, 102, 102, 106, 107; *Miracle of the Relic of the Holy Cross at the Bridge of San Lorenzo*, 115–16; *Miracle of the Relic of the Holy Cross at the Rialto Bridge*, 12, 13, 99, 100; paintings in Scuola di San Giorgio degli Schiavoni, 117, 118; *Pilgrims (St. Ursula and Her Betrothed) Meet with Pope Cyriacus*, 103, 106; *The Return of the Ambassadors*, 12, 12 (detail), 90–91 (detail), 103, 104, 106 (detail), 107–10, 107 (detail of canvas), 108 (detail), 109 (detail), 110 (detail), 112; *Saint Thomas Aquinas with Saint Marc and Saint Louis of Toulouse (Pala Dragan)*, 84; *St. Ursula Cycle*, 19–20, 102–12, 115–17
- Casanova, Alvise, *Specchio lucidissimo*, 39–41, 44
- casein, 69, 71
- Cattaneo, Pietro, 25, 26, 27
- Cavalcaselle, Giovanni Battista, 122
- Cecchetti, Bartolomeo, 233n15
- Cennini, Cennino, 80–84, 86; *Il Libro dell'Arte*, 58–59
- Cerasuolo, Angela, 74
- Cevola, Francesco, 120, 195
- chanevazza/chanevazo, 51
- Charles V, Holy Roman Emperor, 158
- Christ in the Tomb Between Two Angels* (Vivarini circle and [perhaps] Jacopo Tintoretto), 197–200, 198, 199 (detail of bottom edge showing canvas join), 199 (detail of canvas showing seam)
- Church of San Francesco ad' Alto, Ancona, 122
- Church of San Giovanni Elemosinario, 36, 37
- Church of San Marcuola (San Ermagora e Fortunato), 45, 45, 48
- Church of San Sebastiano, 114
- Church of Santa Maria, Posatora, Ancona, 63
- Church of Santa Maria della Pietà, 197
- Church of Santa Maria Gloriosa dei Frari, 122, 126
- Church of Sant'Anastasia, Verona, 63
- Church of Sant'Andrea della Zirada, 143
- Church of Santo Spirito, Isola, 92–93
- Church of Santo Stefano, 124
- Church of the Frari, 209
- Church of the Madonna dell'Orto, 177
- cittadini, 93
- Clark, Kenneth, 212
- Clay, Jean, 249n105

- climatic effects: on canvas painting, 123–24; on fresco painting, 20, 92, 113, 117, 120, 128; on oil painting, 118; on panel painting, 92–93, 122–24, 129
- cloth trade, 36–39, 44
- Colalucci, Gianluigi, 60, 61
- collective commissions, 92, 115–20
- color: of canvas, 41; canvas painting and, 143–69; contour lines blurred by application of, 149; *disegno* vs., 134; in ground treatments, 125; optical mixing of, 145, 163–64; Titian and, 135–36; in Venetian painting, 8, 20, 134–35, 143
- colorito*, 134–35. *See also* color
- coltreri* (cutters/makers of bedcovers), 75
- combing, 48–50
- Coene, Jacob, 85, 238n2
- Condivi, Ascanio, 139
- conservation, 8–11. *See also* preservation
- contour lines: absence of distinct, in nature, 134–35, 149; affected by effects of canvas texture on paint application, 3, 101, 147, 149, 164, 169; lifelikeness achieved by softening/blurring of, 134–35; softness of, as characteristic of Venetian style, 7, 133, 143, 149, 169
- Corona, Leonardo, 124
- corporals (cloths), 216–17, 219
- Correggio, 135
- cotton, 28, 50
- Council of Ten (Venice), 27, 48
- creativity: facture and, 163; *macchie* and, 136; the non-finito and, 139, 173, 213
- Crowe, Joseph Archer, 122
- cycles, of narrative paintings. *See teleri* and *telerei* cycles
- damask weave. *See* lozenge weave
- Dante Alighieri, 27
- Dario da Giovanni (also known as Dario da Treviso or Dario da Pordenone), *Madonna della Misericordia Between Saints John the Baptist and Bernardino of Siena*, 80, 81, 89
- decorative textiles, 57, 75–80, 115–16
- diamond weave. *See* lozenge weave
- disegno* (design/drawing/line), 134–35. *See also* contour lines; drawing
- distemper. *See* glue or gum colors
- Dolce, Lodovico, 1, 134–35, 136, 147, 149, 158–59, 169, 183
- Doni, Anton Francesco, 136
- drawing, 176. *See also* *disegno*
- Ducal Palace, 113. *See also* Great Council Hall, Ducal Palace
- Dunkerton, Jill, 9, 118, 247n31
- Dunn, Joanna, 171–72
- Durand, William, 219, 223
- Dürer, Albrecht, 69, 73–74
- Dyck, Anthony van, 6
- dyeing, 30, 38, 48, 74–75, 136–39, 176
- egg tempera, 56–58, 61, 65, 68, 70, 72, 83, 84, 88, 110, 118, 143, 198
- einsatzbild* tradition, 199–200
- Eisler, Colin, 60
- El Escorial, Spain, 181
- El Greco, 42–43, 182, 222; *The Burial of the Count of Orgaz*, 42
- embroidery, 57, 77
- Este, Alfonso d', 32–33, 126
- experimentation and innovation in canvas painting: Antonio Vivarini and Giovanni d'Alemagna's *Virgin Enthroned* and, 67–68; canvas's material contribution to, 5; in canvas weaves, 66, 96, 103–12, 128, 140–43; Carpaccio's *St. Ursula Cycle* and, 19–20, 102–12, 128; climatic conditions as contributing factor in, 113–14; with cut-and-paste treatments, 186, 189–94; in facture, 107–11; failures resulting from, 126; with ground layers, 162; individualist emphasis of art historiography regarding, 92, 115; Mantegna and, 65; oil paint's role in, 143; by piecing/patching/reusing canvases, 185–89, 197–213; pre-fifteenth-century, 19, 57, 80, 88–89; restoration in relation to, 119–20; *telerei* cycles as watershed in, 7, 91–92, 128; textile trade as contributing factor in, 23; Tintoretto and, 53, 173; Titian and, 124–26, 200–213; Veronese artists and, 66; with workshop workflow, 195–97
- Fabri, Felix, 51
- facture: abrasion vs., 11, 96, 108, 145, 146; canvas's affordances for, 7, 20, 101, 107–10, 133, 145–69, 177–79, 182–83, 221–22; Carpaccio and, 107–9; experimentation in, 107–11; and the non-finito, 213; of old-age style (*altersstil*), 212; skipping/reverberating brushstrokes, 107, 109, 128, 145, 153, 159–60, 163–65, 179; stretching of canvases as factor in, 159–60; Titian and, 132, 135, 163. *See also* *pittura di macchia*
- Falezza, Giulia, 188
- Falomir, Miguel, 191
- Favaro, Monica, 88
- Fero, Domenego, 35
- Ferrara, Duke of, 77
- Filippo, Saint, 48
- finish. *See* non-finito
- fire, as threat to canvas paintings, 92, 97, 117, 118, 195
- flax, 28, 32, 44
- Fondaco dei Tedeschi, Venice, 37–38, 44
- Fowler, Caroline, 176
- fraud, in the cloth trade, 38
- fresco painting (or wall painting): canvas painting in relation to, 3, 7, 20, 59, 92–93, 114, 116–20, 128, 196; climatic effects on, 20, 92, 113, 117, 120, 128; persistence of, 114; preservation of, 92, 118–20; process of, 117
- fustagno* (fustian), 50–52, 75
- Gallerie dell'Accademia di Venezia, 10, 142
- Gallo, Agostino, 28

- Garrido Pérez, María del Carmen, 42, 222
Garzoni, Tommaso, 40; *La piazza universale*, 41
Gayo, María Dolores, 6
Gentile da Fabriano, 91
Gentili, Augusto, 139
Germany. *See* northern Europe
gesso, and other ground treatments: animal glue, 68, 69, 96, 125, 126, 143, 162; artists' oversight/performance of, 163; for canvas paintings, 68, 69, 95–96, 143; Cennini's instructions on, 82; on composite canvases, 190, 208, 210; experimentation and innovation in, 162; for gilding, 83; overview of, 162; for panel paintings, 58, 84; preservation affected by, 82, 126, 152; professional primers and, 35, 163; thin vs. thick, 77, 82, 99, 110, 125, 126, 152, 162–63; for Titian's *Doge Andrea Gritti*, 163
Ghisetto, Lodovico, 35
Giacomo, Saint, 48
Giambono, Michele, *Dormition of the Virgin*, 75–78, 76, 77 (detail), 89
Gibson, James, 13–14
gilding, 55, 57, 68, 83–88, 101–2
Gillray, James, *Titianus Redivivus*, 8, 9
Giorgione, 92, 136; *Portrait of Antonio Broccardo* (attributed), 41; *The Tempest*, 58, 68; *La Vecchia*, 58, 58
Girardo, Manfio, 35
Giustiniani, Lorenzo, 60, 71
Giustizia Vecchia (juridical body), 49, 75
glazes, 143, 147
glue or gum colors, 41, 56, 57, 61, 65, 69–74, 118. *See also* tüchlein paintings
Goffen, Rona, 227
gold leaf. *See* gilding
Gombrich, Ernst, 171
Gracián, Baltasar, 25
Gratian, *Decretum*, 217, 219, 223
Great Council Hall, Ducal Palace, 7, 91–92, 112, 113, 115–20, 119, 157, 195–96, 196, 200
Gregory, Pope, 149
Griesser, Martina, 141
Gritti, Andrea, 1, 155, 157–58, 169
ground layer. *See* gesso, and other ground treatments
Guariento, 91; *Paradise*, 119–20, 119, 195
quazzo. *See* glue or gum colors
Guevara, Felipe de, 6
guilds (*arti*), 32, 36–38, 44–50. *See also* *arte dei depentori* (painters' guild)
Gustavson, Natalia, 141

Helena, Saint, 45
hemp, 6, 27, 28, 30, 41, 44, 48, 51
Henri III, King of France, 32
herringbone weave, 30, 31, 39, 66, 102–3, 106, 109–10, 112, 128, 135, 142, 143, 145, 147, 149, 161–62, 168, 182, 189, 227
Heydenreich, Gunnar, 41
Hills, Paul, 8, 219, 223

Hochmann, Michel, 9, 35, 39, 70
Holbein, Hans, 6
Hope, Charles, 209–10
Humphrey, Peter, 120, 122
humidity. *See* climatic effects

Impressionism, 145
Innocent III, Pope, 219
innovation. *See* experimentation and innovation in canvas painting
intentionality, 16–17, 182
interdisciplinarity, 10
Isabella of Portugal, 158
istorie (narrative paintings). *See* *telari* and *telari* cycles

Jerome, Saint, 93
Jesus Christ, shroud of, 219–20, 223
Jover de Celis, Maite, 6
jute, 6, 28

Kim, David Young, 9, 249n104
Koering, Jérémie, 139, 253n17
Kunsthistorisches Museum, Vienna, 141, 143

Lane, Frederic, 51
Latour, Bruno, 14
Lazzarin, Antonio, 52, 177
Lazzarini, Lorenzo, 9
lead white, 72–74, 110, 143, 153, 177
Le Begue, Jehan, 85
Lehmann, Ann-Sophie, 13
Leonardo da Vinci, 40–41, 136, 139; *Drapery Study for a Seated Figure*, 40
“licked finish” (*leccato*), 169
lifelikeness: canvas's contribution to the appearance of, 3, 12, 109, 171, 177; color as contributing factor to, 134–35; soft/blurred contours as means of achieving, 134–35, 149; Titian's works renowned for, 1, 3, 131–32, 135–36, 158–59, 163–64, 169, 171, 203–4; in Veronese's works, 143–49, 152
light: interaction of the painted surface with, 42, 72–73, 77, 168–69, 221–22; rendering of, with paint on canvas or panel, 12, 68, 73–74, 109, 143, 145, 147, 153, 163, 168
linaroli (combers and spinners), 48–50
linen: botanical origins of, 28; canvas made of, 6, 28; density (thread count) of, 29, 32, 40; early modern description of, 86; everyday uses of, 13, 23, 25, 27, 40–41, 219; guilds associated with, 32, 36–38, 44–50; hemp confused with, 28; liturgical significance of, 217, 219–20, 223; in medieval Italian painting, 58; as painting support, 13, 23, 28, 30, 40–43 (*see also* canvas); properties of, 12, 30, 32, 42, 86; used for papermaking, 176; weaving of, 48
lining/relining, 3, 11, 69, 101, 142, 154, 156, 187, 222, 232n20. *See also* strip-lining
linseed oil, 68, 83
Loermans, Helena, 9, 39

- Lorenzo Veneziano (attributed): *Madonna of Humility* (Santa Maria Maggiore), 63, 64; *Madonna of Humility* (Sant'Anastasia di Verona), 63, 63, 88
- Lotto, Lorenzo, 13, 23, 25–26, 33, 120; *Brother Gregorio Belo of Vienna*, 26, 26; *John the Baptist and Francis*, 41; *Libro di spese diverse* (account book), 26, 35, 39, 41, 159, 181; *St. Jerome Penitent*, 42
- lozenge weave, 30, 42–44, 42, 142, 181–82, 188, 216–17, 219, 221–22, 236n114
- Luini, Arelio, 139
- Lyndwood, William, 217, 219
- MacKenney, Richard, 36–37
- Maestro di Roncaille, *Madonna in a Hortus Conclusus*, 62, 63
- Malaspina, Cornelia, 158
- Malipiero, Domenico, 112–13, 118
- Malvasia, Carlo Cesare, 169
- Manieri Elia, Giulio, 103, 105–6, 112, 209
- Manoscritto Veneziano*, 74
- Mansueti, Giovanni, 117; *Miracle of the Relic of the Holy Cross in Campo San Lio*, 99, 115; *Miraculous Healing of the Daughter of Benvegnudo da San Polo*, 99, 100, 101
- Mantegna, Andrea, 63–66, 71, 75, 78, 92; *Ecce Homo*, 65, 66, 73; *Madonna and Child* (Bergamo), 54 (detail), 61, 65, 66, 73; *Madonna and Child* (Berlin), 78, 79, 80; *Saint Euphemia*, 64, 65; *Saint Mark*, 64, 65, 71
- mariegole*, 36–38, 46, 48–49, 51, 75
- Marin, Giovanni Antonio, 35
- Masson, Antoine, after Titian, *Supper at Emmaus*, 219, 221
- material culture studies, 12–13
- Matteo da Gualdo (attributed), *Crucifixion*, 61
- mediocritas*, 75, 116
- Melone, Altobello, 70
- Merkel, Ettore, 75
- Michael of Rhodes, 51
- Michelangelo, 135, 139
- Michiel, Marcantonio, 26, 70
- Michiel, Melchiorre, 35
- Minerbetti, Bernardo, 42
- Minerva, 224
- Miraculous Draft of the Fishes* (tapestry), 153
- Mocenigo, Alvise, 189–91, 193
- Mocenigo, Alvise (Alvisetto) (son), 189–92
- Mocenigo, Giovanni, 189–92
- Mocenigo, Loredana (née Marcello), 189–92
- Mocenigo, Tommaso, 189–92
- Monaco, Lorenzo (attributed), *The Intercession of Christ and the Virgin*, 61
- Morosini, Enrico, 76
- Muraro, Michelangelo, 114
- narrative paintings/cycles. See *teleri* and *teleri* cycles
- National Gallery, London, 141
- National Gallery of Art, Washington, DC, 189–92
- naturalism. See lifelikeness
- Navarrete, Juan Fernández, 181
- Nero, Emperor of Rome, 6
- Netherlands. See northern Europe
- Neuner, Stefan, 8
- Nibia, Zuane, 27
- Nichols, Tom, 173
- non-finito (unfinished/incomplete): canvas's role in, 183, 186, 212–13; creativity discerned in, 139, 173, 213; facture's role in, 213; meanings of, 20, 139, 171, 212; origin of the concept of, 139; Tintoretto and, 139, 171–73, 212; Titian and, 139, 170–71, 208, 210, 212–13; Veronese and, 212
- northern Europe: canvas painting in, 19, 57, 69–74, 89; and the cloth trade, 37, 44; stylistic traits of, 71; use of tapestries in, 116
- nut oil, 58
- Nygren, J. Christopher, 9, 223
- object-based research, 10–12
- oil painting: climatic effects on, 118; early examples of, 6; experimentation and innovation in, 143; properties of oil paint, 20, 88, 118, 143, 204; Venetians and, 118; on wood panels, 143, 169. See also canvas painting; Venetian painting
- Ottolenghi, Albertini, and Maria Grazia (editors), *Atti Convegno: Tela Picta*, 58
- Ovid, 224
- Pacini, Benedetta, 232n17
- Padua, 59, 63
- painting: canvas's transformation of, 3, 5–10, 14, 16; sculpture vs. (*paragone*), 200. See also canvas painting; fresco painting; oil painting; panel painting; Venetian painting
- paliotti d'altare*. See altar frontals
- Paliotto d'Altare* (Flemish master active in Venice and weavers from Bruges), 78, 78
- Palma il Giovane, 139, 204, 209, 210, 212
- Palma il Vecchio, 120
- panel backings behind canvases, 124.
- panel painting: for altarpieces, 93, 120; canvas painting in relation to, 3, 6, 59, 92–93, 169; climatic effects on, 92–93, 122–24, 129; linen incorporated into, 84; oil paint used for, 143, 169; persistence of, 93, 120–22; piecemeal enlargement of, 204; preservation of, 122; size of, 121
- Paolo Veneziano: *Veglia Altar Frontal*, 76–77, 76; *Worcester Triptych*, 84
- paper, 176
- paragone*, 200
- Pardo, Mary, 8
- Parmigianino, 135
- patrons: canvas and other materials supplied by, 32–35, 39, 59, 126, 159; collective, 92, 115–20; demands of, 39, 170, 181–82, 185, 194
- pentimenti*, 96
- Pérez, Antonio, 135
- Perugino, Pietro, 97
- Petrarch, 27
- Petrucchi, Petrucio, 35

- Pezzan, Geronimo, 38, 39, 42, 44
Philip II, King of Spain, 135, 139, 181–82, 194, 202, 213
Pickering, Andrew, 16
pigments, 32
Pignatti, Terisio, 119
Pino, Paolo, 69–71, 200
Piovan, Valentina, 9, 149
Pisanello, 91
pittura di macchia (as description of Titian's style), 7, 20, 132, 135–38, 157, 182
plain weave. *See* tabby (plain) weave
Plesters, Joyce, 9, 177
Pliny, 6
Poldi, Gianluca, 200
Ponte, Francesco da. *See* Bassano, Jacopo
preservation: of canvas paintings, 57, 82–85, 87–88, 117–18, 124, 126; difficulties of, 170; of frescoes, 92, 118–20; gesso as factor in, 152; gilding as an issue for, 84–85, 87; of panel paintings, 122. *See also* conservation
pressbrokat, 68
primers, of canvas, 35, 163
priming, of canvas. *See* gesso, and other ground treatments
Prinet, Marguerite, 42–44
printmaking, 176
Procuratori di Sopra, 170
Provveditori di Comun (Venice), 36

Raphael, 73, 135, 153; *The Mass at Bolsena*, 216–17, 217 (detail), 218 (detail)
Reeve, Anthony, 204
refractive index (RI), 72, 73
reserve (uncolored area of substrate), 131, 170–71, 176–77, 248n80. *See also* canvas painting: visibility of the substrate in
Reynolds, Joshua, 173
RI. *See* refractive index
Richardson, Jessica N., 223
Ridolfi, Carlo, 195–96
Rinaldi, Stefania Mason, 197
Rosand, David, 7–8, 124, 139; *Notes and Sketches*, 7–8, 8
Rosanò, Pietro, 88
Rossetti, Gioanventura, *Plictho*, 30
Rothe, Andrea, 71
Rubens, Peter Paul, 204
Rubinetto di Francia, 77
Rusconi, Benedetto, *Healing of the Son of Alvisè Finetti*, 99

Saban, Analia, *Painting Ball*, 17, 18
sailcloth, 50–53
Sala de Avogaria, Ducal Palace, 194
Sala del Collegio, Ducal Palace, 155, 193
Sala del Maggior Consiglio. *See* Great Council Hall, Ducal Palace
Salvarani, Renata, 78
Sambo, Alessandra, 122–23
San Andrea della Certosa, 110
Sanctuary of Monte Berico, outside Vicenza, 149
San Giorgio in Alga, 60
San Giorgio Maggiore, 159
San Giovanni e Paolo, 189
San Nicolò della Lattuga, 122, 173
San Samuele, 117
Sansovino, Jacopo, 119
Santa Maria dei Servi, 63
Santa Maria del Parto, Padua, 63
Santa Maria Nascente, Pieve di Cadore, 209
Santa Maria Nova, 45
Santi, Gasparo de, 38, 44
Santo Spirito in Isola, 122–24, 128–29
Sapienza, Valentina, 124
Save Venice Inc., 7
Sburlino, Cristiana, 10
Scala, Alvise della, 181
Scardellato, Chiara, 9, 88, 188
Scirè, Giovanna Nepi, 170, 199
Scorel, Jan van, *Crossing of the Red Sea*, 70
Scuola di San Cristoforo dei Mercanti, 34
Scuola di San Giorgio degli Schiavoni (or Dalmata), 117, 118
Scuola di San Giovanni Evangelista, 97, 102, 115, 118
Scuola di San Girolamo, 93, 128
Scuola di San Marco, 97
Scuola di San Rocco, 35
Scuola di Santa Croce, 36
Scuola di Santa Maria della Carità, 116
Scuola di Sant' Elena, dei tessitori di tela, 45–46, 45, 48
Scuola di Sant' Orsola, 102, 112, 128
Scuola Grande della Carità, 59, 67, 115, 125, 170
Scuola Grande di San Giovanni Evangelista, 216
Scuola Grande di San Marco, 117
Scuola Vecchia della Misericordia, 195–96, 196
scuole, 36, 93, 115–16
scuole dell'arte, 36
scuole nazionali, 117
seams, of canvas paintings, 17, 20, 42, 94–95, 98–99, 111, 124–25, 126, 128, 194
Seccaroni, Claudio, 42
Sensa (fair), 37
Seurat, Georges, 145
shaving/scraping, in preparation of canvases, 71, 82, 83, 162
Sign of the Linaroli, 49, 49
Sign of the Tesseri da Tela, 22–23 (detail), 45–46, 46, 47 (details)
sketches, 139–40
spinning, 28–29, 48–50
Sponza, Sandro, 199
Squarcione, Francesco, 75, 97
Stoichita, Victor, 223
stoppa (linen or hemp process waste product), 50
stretching of canvases, 81–82, 159–60, 252n55. *See also* auxiliary supports
strip-lining, 159, 231n2, 247n45
sumptuary legislation, 75, 116
Suthor, Nicola, 173, 212

- tabby (plain) weave, 29–30, 30, 66, 70, 72, 77, 96, 97, 102–3, 105, 109, 140–43, 149, 153, 177, 190
- tablecloths, 23, 42. *See also* altar cloths
- tapestry, 57, 77–78, 116, 153
- technical art history, 9–10
- telaroli (fabric salesmen), 35–39, 44–45
- teleri and teleri cycles, 19, 92–120, 124, 128
- terlix/terlise (twill-weave canvas), 39–40, 142, 181. *See also* twill weave
- Thomas, William, *Principal Rules of the Italian Grammar*, 27
- thread counts, 29, 32, 40, 58, 68, 71, 97, 234n44, 236n101, 244n21, 244 n32, 244n33. *See also* canvas: coarsely vs. tightly woven; canvas: density (thread count) of
- Timanthes, 25
- time, effects of, on the condition of paintings, 11, 30, 32, 70, 72, 96, 108, 126, 198, 210, 215, 224
- tin, 68
- Tintoretto, Domenico, 34; *Paradiso* (with Jacopo Tintoretto and workshop), 195–96
- Tintoretto, Jacopo: and canvas painting, 74, 171–73, 181, 186; commentary on the work of, 137–38, 139, 172–73, 212; cut-and-paste portraits by, 186, 189–94; drawings of, 176; experimentation and innovation in canvas painting by, 53, 173; and the non-finito, 139, 171–73, 212; patrons' supplying of canvas to, 34–35; piecing/patching of canvas by, 188; reformatting of paintings by, 170; relationship of, to the cloth industry, 48; repair and restoration of paintings undertaken by, 199; speed as characteristic of the working manner of, 173, 191, 212; unconventional manner of, 139, 172–73, 177, 186; and Venetian style of painting, 3, 7
- Tintoretto, Jacopo, works: *Arachne and Minerva*, 21, 214–15 (detail), 223–26, 224, 225 (detail of seam), 225 (details), 226 (detail); *Doge Alvise Mocenigo and Family Before the Madonna and Child*, 189–92, 189, 190 (detail of canvas texture and patch insert); *Doge Alvise Mocenigo Presented to the Redeemer*, 193; *Doge Andrea Gritti with St. Mark Before the Virgin and Child*, 191; *Gonzaga Cycle*, 159; *The Last Judgment*, 133, 177, 178, 179 (canvas sample), 180 (detail), 183, 191, 193 (details of patch inserts); *The Miracle of the Slave*, 28, 52–53, 52; *Nicolò da Ponte Invoking the Protection of the Virgin*, 191; *Nozze di Cana*, 74; *Paradiso* (with Domenico Tintoretto and workshop), 119, 195–96, 195; *The Risen Christ with Three Lawyers*, 191, 192, 192 (detail of patch inserts), 194; *Saint Mark Saving a Saracen*, 188; *Summer*, 171–73, 172, 173 (detail); *Wedding Feast at Cana*, 171–72; *The Worship of the Golden Calf*, 133–34, 177, 178, 179 (canvas sample), 183
- Titian: and canvas painting, 6, 41, 74, 140–43, 154–70, 181, 247n31; and color, 135–36; commentary on the work of, 1, 131–32, 135–36, 139, 157–59, 169–71; death of, 209; drawings of, 176; experimentation and innovation in canvas painting by, 124–26, 200–213; and facture, 132, 135, 163; failing eyesight of, 210; lifelikeness in the works of, 1, 3, 131–32, 135–36, 158–59, 163–64, 169, 171, 203–4; and the non-finito, 139, 170–71, 208, 210, 212–13; and panel painting, 122; patrons' supplying of canvas to, 32–33, 126; piecing/patching of canvas by, 185, 188, 194, 200–213; as a portrait painter, 157–58; present-day evocation of, 17; reformatting of paintings by, 170; style of, 3, 7, 132, 135–36, 157, 212; and Venetian style of painting, 3, 7; working methods of, 202–4, 208–10
- Titian, works: *Adoration of the Magi*, 131, 132, 133, 133 (detail), 170–71, 177; altarpiece for Church of Santo Spirito, 92–93; *Annunciation* (Scuola Grande di San Rocco), 142, 142 (verso); *Annunciation* (Treviso Cathedral), 122; *Assunta*, 93, 121–22, 121; *Bacchus and Ariadne*, 31–32, 34, 34 (verso detail), 126; *Battle of Spoleto*, 117; *The Burial of Christ* (1559, 1572), 201–2, 202; *The Death of Actaeon*, 139, 140, 188; *Doge Andrea Gritti*, viii–1 (detail), 1–2, 2, 3 (detail), 4 (detail), 4 (verso detail), 4 (verso), 5 (detail), 133, 154–70, 157 (detail), 158 (detail), 160 (details of canvas), 160 (verso), 161 (details of canvas), 161 (diagram), 161 (verso), 164 (detail), 165 (detail), 166 (detail), 167 (details), 168 (detail of canvas), 168 (details), 182, 183, 231n2; *Eleven Caesars*, 158; *The Flaying of Marsyas*, 139; *Gozzi Altarpiece*, 122; *The Last Supper*, 181; *Madonna and Child in Glory with S.S. Catherine, Nicholas, Peter, Anthony of Padua, Francis and Sebastian*, 122; *The Martyrdom of St. Lawrence*, 181; *Pala Pesaro* (*Madonna di Ca' Pesaro*), 35, 93, 126–28, 127, 152, 159; *Pentecost*, 123–24, 209; *Pietà*, 184–85 (detail), 204–13, 205, 206 (details), 207 (detail of canvas), 207 (detail), 207 (diagram), 208 (detail of seam), 211 (details); *The Placing of Christ in the Sepulchre*, 200–202, 201, 201 (diagram), 209; *Pope Paul III and His Grandsons*, 41; *Portrait of Isabella d'Este*, 41, 222; *The Presentation of the Virgin in the Temple*, 93, 124–26, 125, 170; *The Rape of Europa*, 135, 136, 137 (detail), 138 (detail), 224, 226–27; *Saint John the Evangelist on Patmos*, 142; *St. Sebastian*, 7; *The Submersion of Pharaoh's Army in the Red Sea*, 176; *Supper at Emmaus*, 219–20, 220, 223; *The Vendramin Family, Venerating a Relic of the True Cross*, 21, 23, 24, 41, 42 (detail), 188, 216–17, 216 (detail of canvas), 220–23, 222 (detail of weave pattern); *Venus and Adonis*, 136, 181, 194; *Venus with a Mirror*, 202–3, 203, 203 (x-radiograph)
- Tonolo, Pietro, 39, 44
- Tosatti, Bianca Silvia, 74
- tramontana (north/northeasterly wind), 123
- transfer (restoration practice), 232n20
- Trecco, Giovanni Battista, *Coltivazione e governo del lino marzuolo*, 28, 29
- Treviso Cathedral, 122
- Trombetta manuscript, 50–51
- True Cross, relics of, 216, 223
- True Cross Cycle, 92, 101, 115, 128
- Tucci (Venetian patrician), 32
- tüchlein paintings (glue medium on canvas), 19, 41, 69–74, 89. *See also* glue or gum colors
- Tura, Cosmè, design for *Lamentation over the Body of the Dead Christ*, 77–78
- twill weave (or simple twill weave), 29–30, 31, 39, 53, 66, 96, 102–3, 105, 106, 126, 128, 142, 149, 153, 161–62, 168, 173, 177,

- 181, 188–89, 208. *See also* herringbone weave; lozenge weave
- Uccello, Paolo, *Saint George*, 6
- Valcanover, Francesco, 52, 191
- Vargas, Francisco de, 135, 194
- varnish, 69, 83
- Vasari, Giorgio: on the Bellini, 6, 101; on *disegno* as chief artistic principle, 134–35; on Dürer, 73–74; and non-finito concept, 139; references to canvas in the work of, 6, 40–41, 42, 73–74, 122; on Tintoretto, 139; on Titian, 122, 132, 135–36, 157, 212; on Venetian painting, 6, 92, 134–35, 183
- Velázquez, Diego, 25, 227; *The Spinners, or the Fable of Arachne*, 226–27, 227
- Venetian painting: canvas as a key element in, 3, 5–8, 14, 16, 20, 50, 92, 120, 182–83; color as a key element in, 8, 20, 134–35, 143; conservation and technical analysis of, 8–9; fresco-to-canvas transition in, 20, 92, 114–20, 128; materiality of, 8; and the oil medium, 118; oldest surviving canvas painting, 67–68; soft contours as feature of, 7, 133, 143, 149, 169; style of, 3, 7, 132–33
- Venice: canvas production and sales in, 13, 23–25, 32, 36–50; civic rituals in, 115–16; cloth market in, 36–39, 44; guilds in, 36–38; narrative cycles in, 92, 243n7; pigment trade in, 23–24; sailcloth production in, 51
- verisimilitude. *See* lifelikeness
- Verona, 63, 66
- Veronese, Paolo: and canvas painting, 141–54, 173–74; canvas weaves chosen by, 141–42, 149, 152–53; death of, 195; drawings of, 176; lifelikeness in the works of, 143–49, 152; and the non-finito, 212; and *Paradiso* contest for the Great Council Hall, 195; patrons' supplying of canvas to, 159; piecing of canvas by, 186, 188; and Venetian style of painting, 3, 7
- Veronese, Paolo, works: *Annunciation*, 130–31 (detail), 153–54, 155, 155 (detail of canvas), 156 (detail); *Deposizione di Cristo*, 142; *Diptych of Isaiah and Ezekiel*, 173–74, 174, 175 (details), 177; *Feast in the House of Levi*, 186, 186, 187 (detail), 187 (verso), 188–89; *Feast in the House of Simon*, 188; *Feast in the House of St. Gregory the Great*, 133–34, 149–53, 150, 150 (diagram), 151 (detail), 152 (detail), 179; *The Finding of Moses*, 153, 154; *Head of a Woman*, 176; *Marriage Feast at Cana*, 159; *Martyrdom of Saint Sebastian*, 114; *St. Jerome Penitent*, 133, 142, 143–49, 144, 145 (detail of canvas), 146 (detail), 147 (detail), 148 (detail), 163, 212
- viewers: optical mixing of color occurring in the eyes of, 145, 163–64; role of, in the perception and interpretation of an artwork, 1, 131, 139, 171–72, 174, 210, 212–13
- Villers, Caroline, 9; *The Fabric of Images* (edited volume), 58
- Vio, Gastone, 49
- Vivarini, Alvise, 91–92, 93
- Vivarini, Antonio, 199; *Polyptych with Scenes from the Passion* (attributed), 42, 43 (detail), 219; *Virgin Enthroned and Child in the Heavenly Garden with the Doctors of the Church, Saints Augustine, Ambrose, Jerome, and Gregory* (with Giovanni d'Alemagna), 66, 67–68, 67 (details), 68 (detail of canvas), 88, 89, 102, 115
- Vivarini circle (and [perhaps] Jacopo Tintoretto), *Christ in the Tomb Between Two Angels*, 197–200, 198, 199 (detail of bottom edge showing canvas join), 199 (detail of canvas showing seam)
- Volpato, Giovanni Battista, 152, 163
- weaves. *See* canvas: coarsely vs. tightly woven; canvas: density (thread count) of; herringbone weave; lozenge weave; tabby (plain) weave; twill weave
- weaving, 29–30, 45–46, 48, 223–24, 226–27
- Weddigen, Erasmus, 9, 249n115
- Weil, Maria Agnese Chiari Moretto, 198
- West, Benjamin, 8
- Wetering, Ernst van de, 6
- Weyden, Rogier van der, 71
- women, in guilds, 46, 48–49
- wood panels. *See* panel painting
- Young, Christina, 51
- Zanforth, Vielmo, 39–40
- Zanforth, Zuane, 39–40
- Zenoi, Domenico, *Entry of Henri III, King of France and Poland, into Venice*, 32, 33
- Zorzi, Alvise, 115
- Zuane, Marco de, 35
- Zuccari, Federico, 137–38 (fig. 4.17)