

programme's emphasis on the sacerdotal duties of preaching and the administration of sacraments, for these tasks, normally performed by regular clergy, were here appropriated by the proprietor monks and Déols at the parish church.

Certain elements of Kupfer's interpretations may be debated. One might question, for example, the extent to which pictorial narrative establishes boundaries between lay and clerical viewers. The author assumes but does not support her view that the painted sanctuaries were inaccessible to the laity, and the inclusion of the donor portrait in the choir of Brinay would seem to indicate that at least the lay aristocracy had access to the sanctuary. On a more general level, one would like to see the author distinguish the func-

tion and structure of these "Romanesque" narratives from earlier medieval programmes of church decoration. But these questions detract little from a book that is so carefully researched and forcefully argued. The author has certainly demonstrated her principal thesis that the universal, sacred narratives in Romanesque wall painting were shaped by the "politics" of the local parish. She is to be commended for opening meaningful avenues of interpretation in French Romanesque painting and for redeeming from obscurity the programmes of rural churches, previously condemned as "folk art" and therefore denied the careful analysis they deserve.

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LARRY J. SCHAAF, *Out of the Shadows. Herschel, Talbot & the Invention of Photography*. New Haven and London, Yale University Press, 1992, 188 pp., \$50 US.

The history of the origins of photography has, until comparatively recently, been the almost exclusive domain of historians of photography or science. Given the consequences of the invention of this medium, it is surprising that the date 1839 and the names of Louis Jacques Mandé Daguerre and William Henry Fox Talbot are not considered part of the fundamentals of general knowledge. The nebulous place photography holds within any level of formal education is in certain respects the result of the manner in which the medium supersaturated nineteenth-century culture and visual perception. Evaluation of the history and function of photography has undoubtedly suffered considerably from the extent of its nineteenth-century success. This is particularly true of the years of photography's invention and early progress.

Nevertheless, the early experiments of Daguerre, Talbot and Herschel and the first years of the progress of photography following the epoch-making announcements of 1839 are at once both complex and fascinating. This book by Dr. Larry Schaaf, based on his University of St. Andrews Ph.D. thesis, is an important contribution to the history of the invention of photography and chronicles both the facts of the crucial experiments and the human drama which unfolded from them. This drama involved central characters on both sides of the English Channel, the intermixing of real and imagined problems and a variety of very human reactions which were, in the short, medium and long term, to have significant implications for the progress of the medium.

The crucial question that Schaaf poses at the beginning of the book is "why, rather than how, photography was finally invented." This is a consideration which continues to vex historians of chemistry, science and photography. Various hypotheses have been propounded, and these fall under three primary headings:

- some of the chemical elements used in the photographic process (such as iodine and bromine) were not invented until the first quarter of the nineteenth century.
- those eighteenth-century chemical experimenters cited as precursors of Daguerre and Talbot did not have fundamental reasons to wish to "fix" an image created by the action of light on silver chloride.
- the inventions of both Talbot and Daguerre were the result of an element of good luck, very much in the same vein as the invention of penicillin.

Art historians have also built up a set of theories regarding the influence of the pictorial and literary arts upon the invention of photography. These include:

- the logical conclusion to the use of the camera lucida and camera obscura.
- the new forms of late eighteenth- and early nineteenth-century painting centred on a new standard of pictorial logic which was symptomatic of changing artistic values, of an embryonic realism.
- the work of Goethe and Schopenhauer, together with early nineteenth-century research in psychology and physiology, caused an uprooting of vision, resulting in sensation and perception taking on many of the features that would later characterize photography.

In answering the question he poses, Schaaf explores all these elements within an examination of the relationship between Herschel and Talbot up until 1844, in order to put for-

ward an answer or, perhaps more accurately, a series of answers. However, the majority of this study centres on the years 1839 and 1840, and the period after 1841 is not dealt with in the same detail as these two decisive years.

Schaaf has examined and mastered a vast amount of primary material on Herschel and Talbot, including the letters of Talbot to Herschel in the Library of the Royal Society, the letters from Herschel to Talbot in the National Museum of Photography, Film and Television in Bradford, the Herschel material at the Humanities Research Center at the University of Texas at Austin and the material in the Fox Talbot Museum in Lacock. Herein lies this study's greatest strength, the use of primary material as evidence to weave a steady, readable and scholarly path through a complex and, hitherto, essentially unwritten story. This is not a book to examine in order to find an extensive bibliography of secondary sources, but the reader will readily appreciate the rewards and benefits of archival research.

While Schaaf centres his thesis on the interest both Herschel and Talbot had in the study of light, he also makes detailed comparison of the artistic competence of these two nineteenth-century polymaths in order to build his thesis. One feature distinguishing the two men was Herschel's proficiency with the camera lucida (on which Schaaf has already published) and Talbot's comparative incompetence. It was, Schaaf conjectures, Talbot's inability to master the camera lucida which acted as a primary motivator in his quest to record an image through the action of light. Thus, Talbot was spurred by his failings as an artist towards the creation of photography, while Herschel's interests were primarily in understanding the science of light rather than harnessing it within an image-making system. However, once stimulated by Talbot's achievements in early 1839 with what might be deemed a practical scientific experiment, Herschel, using his immense knowledge of light, optics and chemistry, produced a photographic process in a matter of weeks.

The detailed use Schaaf makes of the correspondence between Talbot and Herschel, together with other letters sent to these inventors of photography, sheds considerable light on their methodology, their working practices and their experiments during the 1830s. The evidence from these original letters indicates the reluctance of Talbot to announce his process publicly until he had fully mastered it to his own satisfaction and until the chaotic effects which ensued, following Daguerre's announcement in January 1839, had subsided. These factors placed considerable pressure on Talbot and pushed him onto both the defensive and the offensive at a stroke. Feeling that he had lost the initiative to Daguerre, Talbot's quest for a negative/posi-

tive photographic process to challenge the Daguerreotype makes compelling reading. Schaaf's insights into Talbot's character are lucid and perceptive and help explain why Talbot did what he did. There is a clear sense of a race against time in which Talbot found himself an uneasy participant.

The difference between the French government support of Daguerre and the poor treatment shown Talbot by the Royal Society is highlighted on several occasions. As Schaaf points out, Herschel did not actively promote Talbot's cause within the ranks of the Royal Society in the way Arago championed Daguerre's. The "chaotic nature" of the early progress of photography included the manner in which the French Académie des Sciences strategically handled Daguerre's invention and the fate that befell his compatriot Hippolyte Bayard, who had invented a direct positive process by early spring 1839. Schaaf considers Arago's treatment of Bayard in a comparatively kind light. Undoubtedly Arago had a difficult balancing act to perform, faced with the problem of two of his countrymen vying for the prize of being deemed the inventor of photography. While Arago "derailed" Bayard's ambitions to be recognized as the inventor of photography, Schaaf points out that Talbot's Photogenic Drawing process did not have the spectacularly detailed appearance of the Daguerreotype, and this could be said as well of Bayard's first images. Such considerations gave Arago additional reason for encouraging Bayard to improve his process before making an official announcement.

That a similar situation did not arise in England between Talbot and Herschel can be attributed to a significant degree to the characters of the two Englishmen, who saw themselves as friends and colleagues, and to the politics of the Royal Society. Neither Talbot nor Herschel came from commercial backgrounds as did Daguerre. Their research was primarily motivated by scientific curiosity, though Talbot came under family pressure to benefit from his invention. One must sympathize with Talbot, however, for the sometimes virulent attacks made by his mother on his ability to obtain credit for his achievements, though Schaaf concludes that she "had been the main source of strength he needed to bring his brilliant ideas before the public." Above all one must conjecture what Herschel might have achieved had he had such a champion and been motivated in the same way as was Talbot.

Although acknowledgement and recognition by the scientific establishment was a primary concern of Talbot's, the attitude and role played by the fine-art establishment is also relevant. While Delaroche's purported statement on being told of the invention of photography "From today

painting is dead!" is an enticing indication of the manner in which the medium was addressed within the fine-art establishment, discussions of the impact of photography have been evaluated, almost exclusively, from the viewpoint of the scientific establishment. We need to know more about the attitudes of the Royal Academy and the Académie des Beaux-Arts to place the impact of photography in a better perspective. Currently, Dr. Schaaf is working on the collection of thousands of letters held at Lacock to and from Talbot. The information from these letters will shed much more light on the period primarily addressed in this book. Although the story is primarily Talbot's and Herschel's, that of their experiments and collaboration, a wider perspective will only serve to strengthen the account of the invention and early progress of photography.

The story that Schaaf tells entices the reader and, like all good books, raises many questions. Several of these are the result of the perspective given by the scope and limitations of the material Schaaf has so effectively employed. The period from 1841 until the first issue of *The Pencil of Nature* is briefly covered, and it is to be hoped that sufficient archival material survives for a similarly detailed publication on this crucial period in the progress of photography. Other questions may never be answered. For instance, why

did Talbot not attempt to visit Daguerre or at least travel to Paris to examine his process? Is this again a reflection of Talbot's character, or was there a *bona fide* reason? How much can we learn about the critical events in the progress of photography in Great Britain between 1841, the announcement of the Calotype, and the publication of *The Pencil of Nature*? Will extant archival material help us to build a clearer picture of the history of European photography during the 1840s? And why has no major scholarly study on Daguerre appeared since the Gernsheims' seminal volume published thirty-six years ago?

This book is a major work which will further enhance Dr. Schaaf's already formidable reputation as one of the leading photographic historians of his generation. Much of its impact and effectiveness is due to the generosity of Manfred Heiting, who covered the costs of the lavish illustrations, produced using several duotone and colour-colour printing processes on a paper similar in surface to that employed by Herschel and Talbot. While the continued publication of his research is eagerly awaited, one hope that his scholarship will stimulate others to follow his lead and head for the archives!

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JILL DUNKERTON, SUSAN FOISTER, DILLIAN GORDON AND NICHOLAS PENNY, *Giotto to Durer: Early Renaissance Painting in the National Gallery*. New Haven and London, Yale University Press, in association with National Gallery Publications, 1991, 408 pp., \$55 US.

The Sainsbury Wing, an extension of the National Gallery on the northwest corner of Trafalgar Square in London, is the new home of one of the world's finest collections of Early Renaissance paintings. *Giotto to Durer* was published to coincide with the opening of the extension in 1991. All of the authors are affiliated with the National Gallery as curators or restorers of the Early Renaissance collection, and their intimate knowledge of the objects is very much in evidence in this volume. Their book marks a new direction in the publishing history of the National Gallery (presumably because of the association with Yale University Press), in that it united some of the best characteristics of the Gallery's other publications, such as the first-rate catalogues of the permanent holdings,¹ or the excellent series *Art in the Making*, which focuses on the materials and techniques of selected paintings in the collection.² The book is clearly designed to appeal to a general audience, although it will

be of value to the specialist as well. As I discovered last year, it was an invaluable tool for undergraduate teaching, despite several shortcomings to be discussed below.

The book is divided into three main sections. Part One provides a general historical introduction to Early Renaissance society. The authors maintain the traditional dichotomy between sacred and profane in two chapters on "Christian Worship and Imagery" and "Civic, Dynastic and Domestic Art." A brief discussion of the structure of the Western Church is outlined on pp. 18-20, serving as an important preface for the subsequent discussions of altars, saints, relics and the relationship that existed between devotional practices, religious images and altarpieces during this period. This section proved to be particularly useful in teaching undergraduates, many of whom seem to have very little sense of what the Christian tradition represents for past societies. As the discussion is tied in almost exclusively with the objects in the collection, the information on devotional practises, religious orders and confraternities in different parts of Europe is of necessity restricted; however, the lavish colour plates are at least placed in close proximity to the text, making this a readable, well-illustrated account for students to follow. The exclusion of mural