PREFACE

THE thesis of this book grew out of a long endeavour to find a pattern of significance in the story of prints. To discover the pattern it was necessary to approach that story from a point of view which lay outside it, and to take account of values and effects that have customarily been overlooked.

For many years the writer had desired to prepare an ordered argument of his thesis, but time free for the purpose did not come until after retirement from official duties and the fulfilment of some old obligations. Slightly later an invitation to deliver a course of eight lectures at the Lowell Institute of Boston, in January, 1950, not only gave him the inestimable benefit of a 'dead line', but caused him to shorten and simplify his argument.

The book has been written from memory, without notes. When it was finished the writer verified his quotations, checked names, dates, and a few incidents in the common reference books, and made most of the photographs for the illustrations.

The writing was almost finished when there came to hand for the first time André Malraux's *La Psychologie de l'Art*, in which part of the problem here dealt with is considered from a very different point of view and to quite another end.

The writer thanks the following friends for their many kindnesses and their patience with him: Mr. and Mrs. George Boas, W. G. Constable, Alfred E. Cohn, Dudley T. Easbey, Mr. and Mrs. N. Gabo, Walter Hauser, A. M. Hind, A. Hyatt Mayor, Beaumont Newhall, Miss Alice Newlin, Edward Milla, Mr. and Mrs. Theodore Sizer, and Thomas J. Wilson. Especially he thanks the Metropolitan Museum of Art and its staff, past and present, for innumerable courtesies. From his daughter Barbara he has received the keenest of criticism and the most affectionate and unremitting of encouragement.

The notation '(MM)' in the captions for the illustrations indicates that they have been reproduced by permission of the Metropolitan Museum of Art from originals in its collections.

Thanks to the generosity of the publishers, most of the plates have been produced by the collotype process on paper other than that used for either the line blocks or the half tones. To secure the great gain in accuracy of reproduction of the fine textures of the originals thus made possible, it has been mechanically necessary to sacrifice what otherwise would have been the order of the plates in the book.

Woodbury
Connecticut

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ILLUSTRATIONS

1. Painted woodcut from Boner's *Der Edelstein*, Bamberg, 1461 *facing page* 4

   About actual size. This book is the earliest known that is both printed from type and illustrated with printed pictures. The wood-blocks were impressed by hand in blanks left for the purpose in the printed text—much as though they had been rubber stamps. (Reproduced from the facsimile of the unique copy, issued by the Graphische Gesellschaft of Berlin in 1908.)

2. A metal cut of St. Martin (MM) *facing page* 5

   Reduced. A typical late fifteenth-century relief 'metal cut'. The marks of the heads of the nails which held the plate to the wooden block for printing in the type press can be seen at top and bottom. The various technical notions implicit in this kind of work did not come to fruition until the nineteenth century.

3. 'The Duchess', a proof from one of the wood-blocks for Holbein's *Dance of Death* (*c.* 1520) (MM) *facing page* 12

   About actual size, with a portion enlarged to show detail too small to be seen by the unaided human eye. It is doubtful if any finer work was ever done with a knife on a wood-block.

4. Woodcut from Osatus's *La vera perfettione del desegno*, Venice, 1561 (MM) *facing page* 13

   Slightly enlarged. Showing what happened when a woodcut with fine lines was printed on hard ribbed paper. This defect was unavoidable with the paper then available, and possibly had something to do with the shift from woodcuts to copper engravings that began about this time.

5. Portion of a late impression of an early North Italian engraving of St. Jerome in the Desert (pr. coll.) *facing page* 24

   Enlarged. Showing the primitive Italian goldsmith's type of stylized detail and helter-skelter shading, sometimes referred to as the 'fine

Ivins, William Mills. *Prints and Visual Communication.*
E-book, Cambridge, Mass.: The MIT Press, 1969, https://hdl.handle.net/2027/heb02292.0001.001.

manner'. It was succeeded in Italy by the 'broad manner' of the painter engravers, which reached its apogee in the original work of Mantegna.

6. Portion of Mantegna's engraved Bacchanal with Silenus (MM) *after page* 24

Reduced. To be compared with Dürer's pen and ink copy reproduced on the opposite page.

7. Portion of Dürer's pen and ink copy of Mantegna's Bacchanal with Silenus (in the Vienna collection) *after page* 24

Reduced. Mantegna engraved much as he drew with his pen. Dürer in copying him substituted his own anecdotal German calligraphy for Mantegna's simplified powerful statement of essentials. In this kind of distortion Dürer has been followed by most of the succeeding engravers, who have given more attention to the weaving of linear textures than to reporting the basic qualities of their originals.

8. Portion of an anonymous early Italian engraved copy of a drawing by Mantegna (MM) *facing page* 25

Enlarged. One of the first sizeable groups of reproductive engravings was made during Mantegna's life after drawings by him. In many of them Mantegna's style of drawing was closely copied, presumably because it was also the natural style of the engravers. The dots in the outlines of the impression here reproduced were made when it was pricked to take off its design on another piece of paper.

9. Portion of a primitive woodcut of St. Christopher *page* 25

About actual size. Prints of this type are attributed to the early years of the fifteenth century. (Reproduced from Max Lehrs, *Holzschnitte d. ersten Hälfte d. XV Jahrhunderts im K. Kupferstichkabinett zu Berlin*, issued by the Graphische Gesellschaft of Berlin in 1908.)

10. The earliest picture of a printing press. Woodcut from a *Dance of Death* printed at Lyons in 1499 *page* 26

Reduced. (Reproduced from the facsimile of the unique copy in Claudin's *Histoire de l'Imprimerie en France*, Paris, Imprimerie Nationale, 1900 ff.)

11. Woodcut from Torquemada's *Meditationes*, Rome, 1473 (MM) *page* 30

Reduced. This woodcut also appeared in the edition of 1467—the first book printed from type in Italy which contained printed illustrations. They were printed with the type. It was also the first book printed anywhere which contained illustrations that purported to represent specifically located particular things—in this instance some wall decorations in the Church of Santa Maria sopra Minerva which no longer exist.

12. Portion of a woodcut from Valturius's *De re militari*, Verona, 1472 (MM) *page* 31

Reduced. This was the first book illustrated with printed pictures of machinery—this one representing a primitive and doubtless imaginary 'Gatling gun' with eight barrels. The roughly inked blocks were carelessly impressed by hand in blanks left for the purpose in the printed text.

13. Woodcut of 'Asparagus agrestis', from the herbal of the *Pseudo-Apuleius*, Rome, n.d. (*c.* 1483) (MM) *page* 32

About actual size. This was the first illustrated printed herbal. Its woodcuts were rough copies of the drawings in a ninth-century manuscript.

14. Portion of a head of Christ by the early German Master E. S. (MM) *facing page* 32

Enlarged. Showing a step in the early German development from the goldsmith's type of engraving towards a systematized calligraphic linear system.

15. Torso from Mantegna's engraving of the Risen Christ between SS. Andrew and Longinus (MM) *after page* 32

Enlarged. The final development of Mantegna's linear system in engraving. Mantegna's prints had a great influence on design, but counted for little in the subsequent development of the linear structures of professional reproductive engraving. His manner of drawing and shading required powerful draughtsmanship and provided little opportunity for the display of the mere craftsman's skill in routine manipulation.

16. Torso from Dürer's engraving of Adam and Eve (MM) *after page* 32

Enlarged. Dürer's masterpiece of engraved representation of the naked human body. It shows the development of his calligraphic drawing under pressure of his love of detail and his pride in the manual adroitness with which he could lay lines of the greatest fineness with the sharp point of his engraving tool. In spite of his genius, he was probably the greatest of the writing masters—and it is to this that he owes much of his popular fame.

17. Torso from Dürer's woodcut of The Trinity (MM) *after page* 32

Enlarged. Dürer's masterpiece of woodcut representation of the naked human body. Its linear system is to be compared with that of his engraved Adam and Eve. This is a remarkable rendering of a calligraphic pen drawing on the block that had been simplified to meet the exigencies of the woodcutter.

18. Figure from Marc Antonio's early engraving of Pyramus and Thisbe (MM) *after page* 32

Enlarged. An example of the coarse, rough, careless, linear system used by Marc Antonio before he had become thoroughly familiar with Dürer's work. He did not love and caress his lines as Dürer did, and neither was he a dandy as Dürer was.

19. Portion of Marc Antonio's late engraving of Jupiter and Cupid, after Raphael (MM) *after page* 32

Enlarged. An example of the linear system that Marc Antonio finally developed out of Dürer's engravings and woodcuts for the reproduction of ancient sculpture and of Raphael's designs.

20. Portion of Lucas of Leyden's late engraving of Lot and his Daughters (MM) *after page* 32

Enlarged. An example of the linear system finally evolved by Lucas, when he had emerged from Dürer's influence and fallen under that of Marc Antonio. In this he pointed the way to such later men as Goltzius.

21. Portion of an engraving of the statue of Laocoon published by Lafreri at Rome in the middle of the sixteenth century (MM) *facing page* 33

Enlarged. An example of what happened when Marc Antonio's late style fell into the hands of the unintelligent hack engravers of the print publishers.

22. Woodcut of 'Gladiolus', from the herbal known as the *Gart der Gesundheit*, Mainz, 1485 (MM) *page* 35

Reduced. This was the first printed herbal illustrated with printed pictures after drawings specially made for the purpose from actual plants. Its printer was Peter Schoeffer, the surviving partner of Gutenberg.

23. Detail from a woodcut view of Venice, from Breydenbach's *Peregrinationes*, Mainz, 1486 (MM) *page* 37

Enlarged. This was the first printed book of travel that was illustrated with printed pictures after drawings made for the purpose by one of the travellers. His name was Erhard Rewich ('Erhardum silicet Rewich'), and he was the first illustrator of a printed book whose name is known to us. This view of Venice was a folding plate, about six feet long.

24. Woodcut of a living-room, from Pelerin's *De Perspectiva*, Toul, 1504 (courtesy of the Pierpont Morgan Library) *page* 41

Reduced. This was the first printed book to contain the basic rules of modern perspective, and its illustrations are the earliest prints to be drawn in accordance with those rules.

25. Woodcut of violets, from the *Grete Herbal*, London, 1525 (MM) *page* 42

About actual size. This was the earliest printed English herbal. Its illustrations show the degradation of forms that comes from the copying of copies of copies instead of working directly from the original objects.

26. Woodcut of violets from Brunfels's *Herbarum vivae eicones*, Strassburg, 1530 (MM) *page* 43

Reduced. Many herbals had been printed since that of 1485, but this was the next one that contained illustrations specially drawn from the actual plants. The artist was Hans Weiditz.

27. Woodcut of 'Kappiskraut', from Fuchs's *De Stirpium Historia* . . ., Basel, 1545 (MM) *page* 45

Enlarged. Fuchs's herbal appeared as a large folio with large woodcuts, in 1542 and 1543. In 1545 this textless pocket edition was issued with very faithful small copies of the big woodcuts in the earlier editions.

28. Portion of Tobias Stimmer's woodcut of Otto Heinrich, Count Schwarzenburg (MM) *page* 48

Enlarged. Showing the influence of copper plate linear structures upon the work of the woodcut designers and the woodcutters of the second half of the sixteenth century.

29. Detail from Cornelis Cort's engraving of the Martyrdom of St. Lawrence, after Titian (1571) (MM) *facing page* 48

Enlarged. Showing how a stylist engraver took pleasure in weaving a linear web. Cort's engravings did much to introduce Titian's design to the North.

30. Portion of Goltzius's engraving of Bacchus (MM) *after page* 48

Enlarged. Typical of the linear structure worked out by Goltzius, a learned student of the great early engravers and, himself, the most eminent of the northern virtuoso engravers of the late sixteenth and early seventeenth centuries. The picture has become a mere medium for the weaver's skill in making watered silks. At this time, and in prints such as this, reproductive engraving became definitely an independent art, with criteria and values quite different from those of the painters and creative draughtsmen.

31. A page from Bosse's *Treatise on Engraving* of 1645 (pr. coll.) *after page* 48

Enlarged. Showing exercises for the beginner in the use of the engraver's and etcher's tools. Our school writing books still contain comparable exercises in manual discipline.

32. Figure from Mantegna's engraving of the Bacchanal with the Wine Press (MM) *after page* 48

    Enlarged. From an early impression showing the warmth and softness of line caused by leaving the burr on the plate and not removing it before printing.

33. The same figure from Mantegna's engraving of the Bacchanal with the Wine Press (MM) *after page* 48

    Enlarged. From a late impression printed after the burr had vanished and the lines themselves had worn. Most of the impressions of Mantegna's plates are of this hard cold kind and give an utterly false idea of his essential qualities. This pair of contrasting impressions has been selected for reproduction because of the largeness of their lines.

34. The head from Van Dyck's original etching of Frans Snyders (MM) *after page* 48

    Enlarged. Its linear structure is to be compared with that of Paul du Pont's engraved portrait of Van Baelen after a sketch by Van Dyck, on the opposite page. The originals of the two heads are closely of the same size. This one, in its easy assured use of the inherited Rubens formulae, has character and sharp, if summary, notation.

35. The head from du Pont's engraved portrait of Van Baelen, after a sketch by Van Dyck. From the *Iconography* of 1645 (pr. coll.) *after page* 48

    Enlarged. A typical example of the standardized linear structure evolved by the Rubens school of engravers. Here the qualities of the Van Dyck on the opposite page have been sacrificed to a mere craftsman's delight in the pedantic slickness of a formalized and insensitive linear net.

36. Portion of Vorstermans's engraving of 'M. Brutus Imp.', after a drawing by Rubens 'from an ancient marble', 1638 (MM) *facing page* 49

    Reduced. Showing what Rubens in the seventeenth century thought the proper way to reproduce a piece of classical sculpture.

37. Mellan's engraving of Samson and Delilah (MM) *facing page* 64

    Reduced. Showing Mellan's development of parallel shading as a device for the exhibition of popularly (and easily) appreciable craftsmanship.

38. Portion of Baudet's engraving of the 'Spinello' (MM) *after page* 64

    About actual size. Mellan had engraved some statues in this manner —which, however, reached its final development of vapidity at the hands of such later men as Baudet in the 1680's. As a stunt, it probably bears much the same relation to draughtsmanship that Paganini's playing on one string did to music.

39. The head of Nanteuil's engraved portrait of Pomponne de Bellelievre (MM) *after page* 64

Enlarged. This ultimate example of empty and obvious linear virtuosity is generally regarded as the great masterpiece of French classical portrait engraving. As one looks at it one can almost hear the engraver saying to himself: 'Now I'll show 'em'.

40. Portion of Watteau's painting of Le Mezetin (photo. MM) *after page* 64

Reduced. To be compared with Audran's engraving on the facing page. This half tone is not regarded as a work of art as that engraving is, but it tells much more about the original. It is to be noted how the engraving turned Watteau's portrait of a hard-bitten member of the Comédie Italienne into that of a love-lorn youth.

41. Portion of Audran's mixed engraving and etching after Watteau's painting of Le Mezetin (MM) *after page* 64

About actual size. From Jullienne's *L'Œuvre d'Antoine Watteau . . . Fixé à cent exemplaires des Premières Epreuves* (Paris, in the 1730's) —the first attempt to reproduce the oeuvre of an important painter. It was an inestimable boon to the forgers and copyists of Watteau. Blond, sparkling prints, such as this, had a great influence in succeeding French eighteenth-century practice.

42. The face from the engraving by Gaillard after the painting of 'L'Homme a l'œuillet' (MM) *after page* 64

Enlarged. The fine lines lie below the threshold of normal human vision. It is doubtful whether such work could or would have been done had it not been for the then recent discovery of photography. Gaillard was one of the leaders in the French mid-nineteenth-century revolt against the old standardized linear systems in reproductive engraving.

43. A chalk sketch by Watteau as reproduced in Jullienne's *Figures de differens characteres* . . ., Paris, in the 1730's (MM) *after page* 64

About actual size. This skilful but simple rendering in mixed etching and engraving was made by the Count Caylus, a gifted amateur, who made many reproductions of drawings and other works of art of all times and schools. He only reproduced things that amused him. Wealthy, witty, debauched,—soldier, man of letters, archaeologist, critic, and cruel art patron,—Caylus's influence is still visible in conservative contemporary taste.

44. The central figures from Rembrandt's mixed etching and dry point of the Agony in the Garden (MM) *facing page* 65

Enlarged. Showing Rembrandt's unwillingness to subordinate expression and lively draughtsmanship to a formal linear structure which would have given him both larger editions and greater popularity. It was not tidy and had no trace of the highly polished machine finish that was rapidly becoming essential to commercially successful print making.

45. Portion of a trial proof of Lucas's mezzotint after Constable's sketch of Stoke-by-Neyland (MM) *facing page* 80

Enlarged. Sharp lines, abrupt transitions, and variations of texture, i.e. brilliance and transparency, were impossible to achieve in the treacly medium of mezzotint. It only reached great popularity in England, where it became the typical technique for the reproduction of low keyed oil paintings by British artists of the late eighteenth and early nineteenth centuries. No original artist has ever adopted mezzotint as his medium of expression.

46. Portion of Goya's pure aquatint 'Por que fue sensible' (pr. coll.) *after page* 80

Enlarged. Although aquatint, usually in combination with etching, was very popular in the late eighteenth and early nineteenth centuries for the reproduction of water colour drawings, Goya was the only major artist ever to use it habitually for original work.

47. The Ecchoing Green from Blake's *Songs of Innocence*. Reproduced from an uncoloured impression of the original relief etching in Gilchrist's *Life of William Blake*, London, 1863. *after page* 80

About actual size. Blake's *Songs of Innocence* were printed in 1789 from copper plates etched in relief. The technique came to its full usefulness when the younger Gillot combined it with a way of photographically transferring a drawing to a plate.

48. Portion of a relief print by Daumier, entitled 'Empoignez les tous . . .'; from *Le Magasin Charivarique*, Paris, 1834 (pr. coll.) *after page* 80

About actual size. Probably made by a variety of the 'chalk plate' process. It shows how much the merit of a print depends on the man who makes it, rather than upon any particular quality of the process used. This has not been understood in the English speaking countries.

49. A tail-piece from Bewick's *Land Birds*, originally published at Newcastle in 1797 *after page* 80

Enlarged. An early white line wood-engraving. Three impressions from the same block: (1) a specially inked and printed proof on

Ivins, William Mills. *Prints and Visual Communication.*
E-book, Cambridge, Mass.: The MIT Press, 1969, https://hdl.handle.net/2027/heb02292.0001.001.

China paper (MM); (2) a carelessly inked and printed impression on rough paper from the textless edition of 1800 (pr. coll.); (3) an impression on better paper from the edition of 1832 (pr. coll.). These three impressions illustrate the difficulties the printers had in printing Bewick's fine textured white line blocks with the papers and inking methods then available.

50. Detail of Charlton Nesbit's wood-engraving of Rinaldo and Armida, from Savage's *Hints on Decorative Printing*, London, 1822 (pr. coll.) *after page* 80

Enlarged. This impression was carefully printed on China paper mounted on the regular paper of the book. The engraver instead of frankly working in white lines as Bewick and Blake did, attempted to make his prints look like black line engravings on copper—then still regarded as the best way of reproducing pictures. But he went copper engraving one better by engraving schematic white lines across his schematic black lines.

51. Detail from the defaced block of Nesbit's Rinaldo and Armida (pr. coll.) *after page* 80

Enlarged. This impression was printed with ordinary care on the paper used for the text pages of the book. Impressions from the defaced blocks were inserted at the end of Savage's book to show that there could be no subsequent edition—but, after the blocks had been defaced and printed from in that condition, this one, at least, was promptly repaired and some impressions from it were printed with great care on China paper. In making up the copies of the book some of these later impressions got mixed with the earlier China paper ones and were used in their places in the book. Thus this very bad impression from the defaced block is actually earlier than that on China paper reproduced on the facing page from the same copy of the book.

52. Two black line wood-engravings from *Puckle's Club*, London, 1817 (pr. coll.) *after page* 80

About actual size. While the illustrations were printed on India paper mounted on the text pages, the tail-pieces were printed with the type on the paper of the text pages. The difference in quality of impression caused by the different papers is obvious. Paper adequately smooth to yield good impressions from such fine textured blocks was not available for commercial use until the end of the nineteenth century.

53. Two wood-engravings, one by Blake and one anonymous, from Thornton's *Eclogues of Vergil*, London, 1822 (pr. coll.) *after page* 80

About actual size. This was one of the earliest school text books to be illustrated with a large number of wood-engravings. Those by Blake are among the earliest perfectly free drawings done with the engraving tool on the wood. Thornton found it necessary to apologize for them in a footnote, but saw no necessity to comment on the other blocks, which are typified by the second reproduction. The blocks were printed with the type on the cheap paper of the book.

54. Portion of Harvey's wood-engraving of B. R. Haydon's painting of the 'Death of Lucius Quintus Dentatus' (MM) *after page* 80

Enlarged. The earlier wood-engravings were so small that the difficulties in printing came from the paper and the methods of inking. This engraved block, however, was 11½ by 15 inches in size, and was so full of blacks that until about 1821 no press was found powerful enough to print it. When finally printed, it had to be done in a very limited edition on India paper, which alone was smooth enough. By that time the block had split. A prime example of the dominance of the copper-engraved linear structure inherited from the sixteenth century.

55. The famous classical statue of Niobe and her Daughter, from the *Penny Magazine* in 1833 *after page* 80

Reduced. The *Penny Magazine*, started in 1832 by Charles Knight, was the first cheap illustrated English weekly, and rapidly reached a circulation of 200,000 copies. This engraving on wood was coarsely worked to be printed rapidly on cheap paper in a power press. Far from being a deliberate caricature, it was a serious attempt to bring information and culture to the greater British public.

56. Portion of a wood-engraving of a drawing on the block by Daumier (pr. coll.) *facing page* 81

Enlarged. While in England they were making pale wood-engravings like those in the Tennyson of 1857, the French began to make more full-bodied illustrations. This one appeared in *Le Monde Illustré* in the middle 1860's. It was engraved by Maurand. At the beginning of the present century such prints as this had great influence on French original wood-engraving, e.g. in the work of Lepere, who once owned the rubbed proof from which this reproduction is taken.

57. Portion of the wood-engraving after Giotto's 'The Salutation', from *Arena Chapel Padua*, London, 1860 (MM) *facing page* 96

About actual size. The set of wood-engravings from which this is taken introduced Giotto's paintings in the Arena Chapel to the English speaking world. The accompanying text was written by Ruskin. A perfect example of how the mid-Victorian engravers unconsciously transformed figures from the distant past into masqueraders from Barchester Towers. From the time when Dürer translated Mantegna into Nuremberg German to this translation of Giotto into 'refined' nineteenth-century English transformation of this kind was inevitable in all printed copies or reproductions of works of art.

58. W. Holman Hunt's illustration of 'The Lady of Shalott', in the *Tennyson* of 1857 *after page* 96

About actual size. Between 1832 (the *Penny Magazine*) and 1857 (the *Tennyson*) great changes had been made in paper-making and in the techniques of wood-engraving and printing. It would have been impossible to issue a trade edition of a book illustrated in this way in 1832. Hunt drew his little picture directly on the block, which was then sent to the Dalziel shop, where it was engraved 'in facsimile'. The block was signed by the shop.

59. Reproduction of a collotype of a photograph of Hunt's drawing on the block for 'The Lady of Shalott' (here reproduced by kind permission of Mrs. Michael Joseph) *after page* 96

About the actual size of the collotype in G. S. Layard's *Tennyson and his Pre-Raphaelite Illustrators*, London, 1894. At the time Layard's book was printed no half-tone could be made that was adequate to the reproduction of this drawing.

60. Portion of a relief print by Ch. Jacque, of unknown origin, and presumably in the 1870's (pr. coll.) *after page* 96

About actual size. Reproduced from a China paper proof of a block made by a variety of the Comte process, that preceded Gillot's discovery of a method of transferring a drawing to a plate by photographic means.

61. Paper photograph of a Latticed Window at Lacock Abbey, made by Fox Talbot in August, 1835 (British Crown Copyright. Science Museum, London (Fox Talbot Collection)) *after page* 96

About actual size. The pen and ink inscription is in Fox Talbot's handwriting. This is perhaps the earliest known photograph—printed from a negative on paper.

62. Bolton's wood-engraving after Flaxman's relief 'Deliver us from Evil', from Bohn's edition (1861) of the Jackson and Chatto *Treatise on Wood-engraving* *after page* 96

About actual size. Bolton had the surface of a wood-block sensitized and a photograph made on it through the image thus attained. It was one of the first reproductive wood-engravings made through a photographic image instead of through a drawing on the block by an intermediary draughtsman. This procedure eventually became the typical late nineteenth-century way of making reproductive book illustrations.

63. Portion of a wood engraving by W. J. Linton (pr. coll.) *after page* 96

Enlarged. From a proof impression on fine paper that belonged to

Linton. The apogee of English reproductive white line engraving on wood was reached in the last quarter of the nineteenth century in such prints as this—freely drawn with the engraving tool through a photographic image on the block. The advent of the cross line half-tone screen for photo-mechanical reproduction, in the 1890's, put an end to this kind of work.

64. Portion of a pen-drawn lithograph by Stothard, from the *Polyautographic Album*, London, 1803 (pr. coll.) *facing page* 97

Enlarged. This album was the first set of artistic lithographs. It had not yet been discovered that lithography had any special qualities of its own, or that it could be more than a cheap way of getting reproductions of conventional drawings.

65. Portion of one of Goya's four lithographs of Bull Fights (MM) *facing page* 112

Reduced. Made about 1825 by Goya at Bordeaux, this set contained the first freely drawn, scraped, and scratched, powerful original pictures on stone.

66. Portion of Delacroix's lithograph of La Sœur de Du Guesclin (MM) *after page* 112

About actual size. Delacroix was perhaps the greatest of the French romantic painter-lithographers. He laboured as seriously and carefully over elaborately worked prints like this as he did over his paintings.

67. Portion of Daumier's lithograph entitled 'Un zeste! un rien! et l'omnibus se trouve complet,' which appeared in *Le Boulevard* in 1862 (pr. coll.) *after page* 112

Reduced. Daumier, being regarded by all but few as merely a comic newspaper caricaturist, was not accepted by the world as one of the greatest artists of his century until long after his death. His work suffered from those three greatest obstacles to serious artistic reputation—abundance, cheapness, and a sense of humour.

68. Portion of Manet's lithograph 'Les Courses' (MM) *after page* 112

About actual size. In France, where sketches were taken seriously as works of art, many of the painters of the nineteenth century used lithography to publish work of this kind.

69. 'Engraving' of a classical Roman wall painting, from Lodge's English translation of Winckelmann's *History of Ancient Art*, Boston, 1880 *after page* 112

About actual size. When this standard translation of the 1840's was republished in 1880, the badly worn and reworked old plates were still thought adequate to represent the things that Winckelmann wrote about. They explain a great deal of old aesthetic theorizing and values. Today such a print as this smacks, not of any ancient classical work, but of the decorations which similar reproductions inspired in nineteenth-century German beer halls. Its 'original', about which Winckelmann's was comically enthusiastic, was actually an eighteenth-century fake.

70. Illustration by Daniel Vierge from Quevedo's *Pablo de Segovie*, Paris, 1881 (MM) *after page* 112

About actual size. The reproduction is made from a China paper copy of the book, which was one of the first to be illustrated with photographic line blocks from specially made drawings.

71. Portion of an early grain half-tone, after a drawing by Natoire, that appeared in *L'Artiste* in 1882. *after page* 112

Enlarged. This half-tone process was regarded as being so remarkable that the reproductions made in it for *L'Artiste* were specially printed on brownish paper and 'tipped' into the magazine. The lack of contrast and the unevenness of the texture of the reproduction are obvious.

72. An early cross line half-tone, from Furtwängler's *Meisterwerke der Griechischen Plastik* of 1893 *facing page* 113

Enlarged. Although this was a half-tone reproduction of a photograph, it had to be reworked by hand, as can be seen all through the deep shadows. The high lights that give shape to the parts of the head in deep shadow have been put in by retouching.

73A. The head of Laocoon as it was engraved by Marco Dente, who died in 1527 (photo. MM) *facing page* 128

73B. The head of Laocoon as it appeared in the woodcut in Marliani's *Urbis Romae Topographia,* Rome 1544 (photo. MM) *facing page* 128

74A. The head of Laocoon as Sisto Badalocchio etched it about 1606 (photo. MM) *after page* 128

74B. The head of Laocoon as Thurneysen engraved it for Sandrart's *Sculpturae veteris admiranda, sive delineatio vera . . .*, Nuremberg, 1680 (photo. MM) *after page* 128

75A. The head of Laocoon as Ransonette reproduced it for Poncelin's *Chef-d'œuvres de l'antiquité . . .*, Paris, 1784 (photo. MM) *after page* 128

75B. The head of Laocoon as Piroli engraved it for the '*Musée Napoleon*', Paris, 1804 (photo. MM) *after page* 128

76A. The head of Laocoon as it appeared in the complete edition of Winckelmann, Prato (1834) (photo. MM) *after page* 128

76B. The head of Laocoon as it appeared in the '*Clarac*', Paris, 1839–1841 (photo. MM) *after page* 128

77A. The head of Laocoon as it was engraved on wood for Lübke's *Grundriss* . . ., Stuttgart, 1868 (photo. MM) *after page* 128

77B. The head of Laocoon as it was illustrated in Murray's *History of Greek Sculpture*, London (1890) (photo. MM) *after page* 128

78. Engraved portrait of Simon de Montfort, from Montfaucon's *Les Monuments de la Monarchie Française*, Paris, 1730 (MM) *after page* 128

About actual size. This book was a serious attempt to deal with mediaeval art. Little could more accurately reflect the eighteenth century's lack of understanding of that art than this print, which is solemnly said in the book to have been taken from a painted window at Chartres. For us the print has a much closer resemblance to King Padella of Crim Tartary, the father of Prince Bulbo, than to any mediaeval work of art.

79. A classical head in the Townley Collection as it was published in the *Specimens of Ancient Sculpture* issued by the Society of Dilettanti in 1809 (MM) *after page* 128

Enlarged. These expensive engravings, made a few years before the Elgin Marbles were brought to London, were thought at the time to be the best possible reproductions of classical sculpture. It is easy to see why connoisseurship based on such reproductions as this was so unsound.

80. Portion of an etching of the Parthenon Theseus, from Richard Lawrence's *Elgin Marbles from the Parthenon at Athens*, London, 1818 (MM) *facing page* 129

Reduced. This book contained one of the earliest sets of reproductions of its now famous subjects. Lawrence's bare and insensitive outlines probably conveyed as much valid information about his originals as did the elaborate 'machine finished' engravings in the *Specimens of Ancient Sculpture* of 1809 about theirs.

81. Portion of the wood-engraving of the Parthenon Theseus which appeared in Overbeck's *Geschichte der Griechischen Plastik* of 1869 *facing page* 132

Enlarged. The picture was drawn and not photographed, on the block. It shows that in 1869 the illustrators and engravers for text books were

still dominated by the formal linear scheme invented by the engravers on copper at the end of the sixteenth century. 'A certain conservatism' may be said to be the distinguishing mark of all text-book illustration even to the present day.

82. A head from the 'etched state' of the print after Moreau le jeune for 'Les Délices de la Maternité' in the set of engravings known as the *Monument du Costume*, Paris, 1777 (MM) *facing page* 133

Enlarged. Preliminary etching of this kind was known as 'forwarding'. It played little or no part in the effect of the finished print. The taste of the time did not approve such summary and expressive use of line in its printed pictures.

83. The same head from 'Les Délices de la Maternité', after it had been finished by the engraver and by him reduced to the accustomed linear system. That this killed all its colour and expression was not thought a matter of importance (MM) *facing page* 140

84. A modern half-tone, made for this book, of a detail from Rembrandt's painting of 'An Old Woman Cutting her Nails' (photo. MM) *facing page* 141

Modern panchromatic photographic emulsions and modern cross line half-tone process, together with the improvements in presses and press work and in the making of very smooth papers, have made possible the illustration of cheap books and magazines with reproductions such as this, in which *the actual surfaces of the objects reproduced are made visible*. The lines and dots of the process are too small to be seen by the unaided human eye, and no longer remain to distort and falsify the pictorial reports as they did in all the earlier hand-made graphic processes and in the early half-tones. In this half-tone there are 133 dots to the linear inch.

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I

INTRODUCTION

THE BLOCKED ROAD TO PICTORIAL COMMUNICATION

IN 1916 and 1917, when the department of prints of the Metropolitan Museum of Art in New York was being started, there was much talk and argument about what the character of its collection should be. In the course of those discussions I became aware that the backward countries of the world are and have been those that have not learned to take full advantage of the possibilities of pictorial statement and communication, and that many of the most characteristic ideas and abilities of our western civilization have been intimately related to our skills exactly to repeat pictorial statements and communications.

My experience during the following years led me to the belief that the principal function of the printed picture in western Europe and America has been obscured by the persistent habit of regarding prints as of interest and value only in so far as they can be regarded as works of art. Actually the various ways of making