

contents

<i>List of Illustrations</i>	xi
<i>Preface</i>	xv
Part I: All Kinds of Drawings	
Introduction	3
Philosophy and Drawing	3
Drawing and Arts of Drawing	4
Chapter 1. Picture of a Drawn World	7
The Modern World: Drawing the Line	7
“The Rationalization of Sight” I: Bold Claims	12
Method: The Dialectical Engineer	13
“The Rationalization of Sight” II: Naturalism	15
Villard’s Saw	16
Chapter 2. Instruments of Change	19
Family Project	20
Perspective	28
Cartoon Cases	30
Modelling Perspective: Dürer’s Devices	32
Panofsky’s Perspective I: Panofsky’s Purposes	35
Panofsky’s Perspective II: “Post-perspective” Arguments	39
Panofsky’s Perspective III: Assessments	41
Hands On: First and Second Geometries	43
Geo 2 Practical: Fixing Dürer’s Urn	47
Geo 2 Historical: What Is “Post-perspective”?	48
Defending Panofsky: Distinctions of Scales	49

illustrations

1. Bison Panel, End Chamber, Chauvet Cave	5
2. Saul Steinberg, "Self-Portrait"	6
3. Curve function diagram	9
4. Circuit-wiring diagram	9
5. Ur: drawing board, stylus, ziggurat plan	11
6. Stonecutter, from Denis Diderot, <i>Encyclopédie</i>	11
7. Constructional drawing illustration from Plato, <i>Menon</i> 82–85	12
8. Villard (Vilars) de Honnecourt, saw diagram	16
9. Clockwork: verge and foliot clock escapement diagram	17
10. Perspective 1: plane intersection	21
11. Cartographic projections: orthographic and stereographic	21
12. Parallel projection 1: orthographic	23
13. Parallel projection 2: orthogonal nonorthographic	23
14. Parallel projection 3: isometric	23
15. Parallel projection 4: oblique	23
16. Parallel projection 5: axonometric	23
17. First and second angle (quadrant) developments from orthographic projections	24
18. William Farish, isometric diagrams	25
19. Furniture assembly instruction	25
20. Hannes Meyer and Hans Wittwer, axonometric architectural drawing	26
21. Nizami, "The Eavesdropper"	27
22. Perspective 2: vanishing points	28
23. Perspective 3: reduction	29
24. Perspective 4: diminution function	29
25. Brook Taylor, standard perspective heuristic	30

26. Hergé, Tintin cartoon	31
27. Dave Blazek, isometric cartoon	31
28. Three-space mathematical diagram	31
29. Roz Chast, isometric cartoon	32
30. Robert Weber, perspective cartoon	32
31. Albrecht Dürer, "Lute"	33
32. Albrecht Dürer, "Urn"	33
33. Albrecht Dürer, "Portrait"	34
34. Albrecht Dürer, "Nude"	34
35. Roman perspective: Pompeian wall painting	37
36. "Every point" perspective projection	38
37. Taccola, Brunelleschi's ox-lift device	41
38. Perspective transversals construction	46
39. Viator, distance-points diagram	46
40. Fig. 32 detail study	47
41. Engineering dimensioning drawing	51
42. London Underground map	55
43. Interlace pattern	57
44. Bowline knot diagram	59
45. Capitoline Museums map	59
46. Anna O. Shepard, symmetry diagram	65
47. J. Peter Denny, band symmetry analysis	66
48. Child (EL), enclosures drawing	72
49. Child (EL) drawing	72
50. Tughra of Sulaiman the Magnificent	74
51. Child's drawing, Dog and pig-bully	76
52. Child's drawing, Monster	76
53. Child's drawing, Parrot and nest	78
54. Child's drawing, Playground	80
55. Epictetus in Rome	81
56. John Willats, object-centered drawing stimulus pictures	82
57. Wilhelm Busch, Schopenhauer and his poodle	96
58. Leonardo da Vinci, "Designs for a Nativity"	107
59. Child (AM) drawing, Museum	110
60. Faces in strange places: Starfit packing	112
61. Faces in strange places: birch eyes	112
62. Pantheon, butterfly marble	113
63. Müller-Lyer illusion	116
64. Assyrian lion relief, North Palace of Sennacherib	117
65. Mayan vase painting, Scribe Pawahtún	121
66. Bears from Cactus Gallery and Recess of the Bears, Chauvet Cave	124
67. Mycenaean stirrup jar with octopus	129
68. Painted molding, Ognissanti, Florence	132
69. Zou Fulei, "A Breath of Spring"	140
70. Two lions, End Chamber, Chauvet Cave	142
71. William Tucker, drawing	144
72. Shih-t'ao, leaf from album for Taoist Yü	145

73. Shen Shih, "Sunset in an Autumn Valley," detail	146
74. Michelangelo, study for the Figure of Adam	147
75. Arnout Vinckenborch, "Study of Male Figure"	149
76. Albrecht Dürer, "Samson Killing the Lion"	151
77. Leonardo da Vinci, "Vitruvian Man"	153
78. Lion Panel, End Chamber, Chauvet Cave	154
79. Giovanni Battista Tiepolo, "Fantasy on the Death of Seneca"	155
80. Aristide Maillol, "Reclining Nude"	156
81. Peter Paul Rubens, "Seated Nude Youth"	158
82. Nicolas Poussin, "La Fête de Pan"	161
83. Goya, "Two Prisoners in Irons"	164
84. Georges Seurat, "Woman Seated by an Easel"	167
85. Goya, "Three Soldiers Carrying a Wounded Man"	169
86. Nicolas Poussin, "Polyphemus Discovering Acis and Galatea"	175
87. Albrecht Dürer, "Saint Jerome in His Study"	177
88. Fig. 87 detail	181
89. Paul Cézanne, "Trees"	187
90. Duck-rabbit	200
91. Rembrandt, "Hendrikje Asleep"	208
92. Tarentine bell krater with scene of Cheiron	226