

C. OCTAVIUS WRIGHT  
AND W. ARTHUR RUDD

# Model Drawing



MODEL DRAWING  
GEOMETRICAL AND PERSPECTIVE

WITH ARCHITECTURAL EXAMPLES

BY

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Art Master's Certificate (Board of Education)

AND

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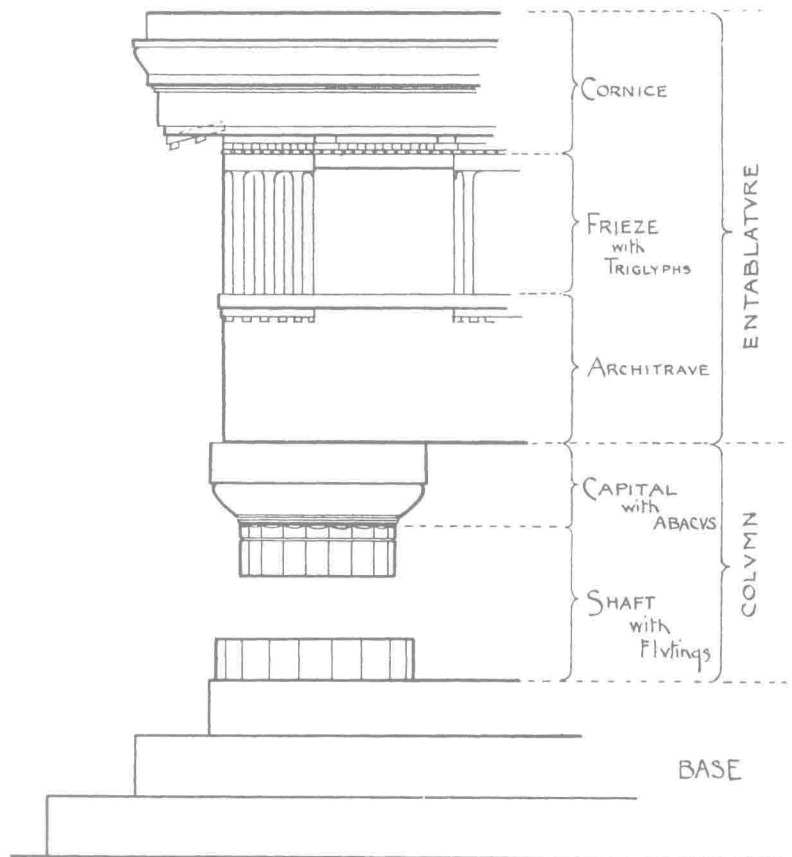
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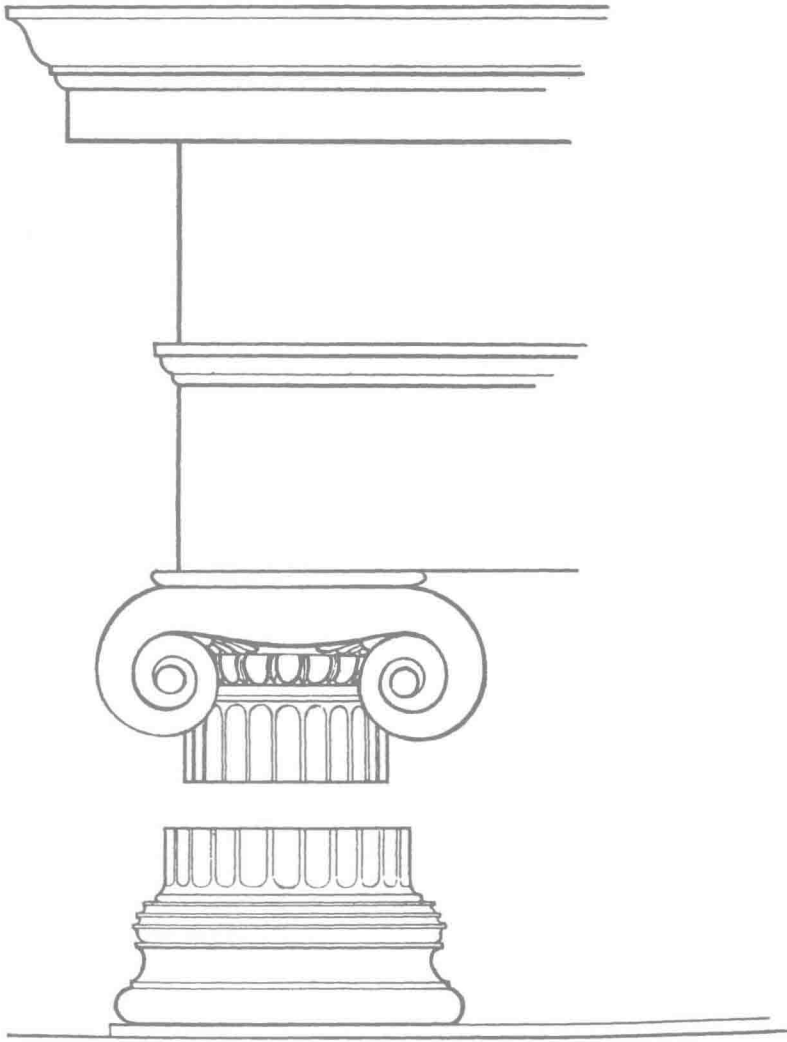
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## PREFACE

LONG experience in the teaching of Model Drawing has convinced the authors that the use of the ordinary apparatus of the art—the cube, the sphere and other formal geometrical models—fails in most cases to arouse the interest of the student or to inspire him with the imagination which is essential to the development of artistic talent.

An experiment was made in the employment of architectural forms with the customary models, and the success which has attended this experiment has encouraged the authors to a systematic treatment of the subject, and to its presentation through this volume to a larger public.

Although in the present treatment of the subject there will be found an undercurrent of suggestion of the historical development of architecture, the work is not intended to be an architectural text-book. If it is found to be of value in presenting in an interesting form the theory of correct drawing, and in acting as an incentive to original work, the object of its production will have been attained.

Apart from its use of architectural forms the book contains several new features. No measuring points are employed. Useful perspective tests are introduced which with a little practice can be applied with facility, and should be of great benefit to the student in his more advanced work. The authors believe that the perspective treatment of the circle is quite new, and they have found that pupils can use the method with ease and advantage. Comparisons of representations on changing picture planes are given, and their relative advantages are discussed. Frequent opportunities are afforded for sketching from memory. Free use is indicated of tracing-paper in observation work, and of clay in modelling.

C. O. W.  
W. A. R.

*June 1916.*

'To distinguish between correctness of drawing and that part which respects the imagination, we may say the one approaches to the mechanical, and the other to the poetical. To encourage a solid and vigorous course of study, it may not be amiss to suggest, that perhaps a confidence in the mechanic produces a boldness in the poetic.'

Sir JOSHUA REYNOLDS  
(13th Discourse).

# CONTENTS

		PAGE
	A SURVEY . . . . .	1
<b>PART I. GEOMETRICAL</b>		
CHAP.		
I.	RECTANGLES . . . . .	9
	RECTANGULAR PRISMS . . . . .	37
II.	THE SQUARE AND OCTAGON . . . . .	50
	THE CUBE: SQUARE AND OCTAGONAL PRISMS AND PYRAMIDS . . . . .	60
III.	THE TRIANGLE AND HEXAGON . . . . .	71
	TRIANGULAR AND HEXAGONAL PRISMS AND PYRAMIDS . . . . .	82
IV.	THE CIRCLE . . . . .	94
	THE SPHERE, CONE, CYLINDER AND RING . . . . .	110
<b>PART II. PERSPECTIVE</b>		
V.	RECTANGLES . . . . .	129
	RECTANGULAR PRISMS . . . . .	158
VI.	THE SQUARE AND OCTAGON . . . . .	175
	THE CUBE AND SQUARE PRISM . . . . .	186
VII.	THE TRIANGLE AND HEXAGON . . . . .	198
	TRIANGULAR AND HEXAGONAL PRISMS AND PYRAMIDS . . . . .	206
VIII.	THE CIRCLE . . . . .	218
	THE SPHERE, CONE, CYLINDER AND RING . . . . .	229
	INDEX TO ILLUSTRATIONS . . . . .	246



# ILLUSTRATIONS

## PART I. (GEOMETRICAL)

### CHAPTER I. RECTANGLES

FIGS.		PAGE
1-4	Right Angles . . . . .	9
5, 6	Parallel Straight Lines . . . . .	10
7, 8	Rectangles . . . . .	11, 12
9-12	Planes at Right Angles . . . . .	14, 15
13, 14	Projection: orthogonal . . . . .	17
15, 16	Plans and Elevations . . . . .	18
17, 18	Plans and Elevations of Straight Lines . . . . .	19, 20
19-22	Plans and Elevations of Rectangles . . . . .	20-22
23	Projection . . . . .	24
24, 25	Projections of Shadows of Rectangles . . . . .	25, 27
Rectangular Forms		
26	Plan of Salisbury Cathedral . . . . .	30
27, 28	Herring-bone Work . . . . .	31
29, 30	Tiles . . . . .	31, 32
31	Rustication . . . . .	32
32-34	Steps . . . . .	33
35	The Dentil Band . . . . .	34
36	Long and Short Work . . . . .	34
37-39	Chain Bands . . . . .	35
40	Linking . . . . .	36
41-43	Crosses . . . . .	36

### RECTANGULAR PRISMS

44, 45	Rectangular Prisms . . . . .	37
46	Projection of the Rectangular Prism . . . . .	38
47	Practical Work . . . . .	38
48, 49	Plans and Elevations of Rectangular Prism . . . . .	39, 40
50	Chamfering . . . . .	40
51, 52	Projection of Shadows of Rectangular Prisms . . . . .	41, 42

FIGS.	For Modelling	PAGE
53, 54	Block Letter . . . . .	43
55, 56	Post and Lintel . . . . .	44, 45
57, 58	Steps . . . . .	45, 46
59, 60	Brickwork . . . . .	46, 47
61, 62	Plan of Temple . . . . .	47, 48
63, 64	The Dentil Band. . . . .	48, 49
CHAPTER II. THE SQUARE AND OCTAGON		
65, 66	The Square, Rhombus and Octagon . . . . .	51
66 a	Octagonal Mesh . . . . .	52
67, 68	Projection of Shadows of the Square and Octagon . . . . .	53, 55
Square and Octagonal Forms		
69-71	Chequering . . . . .	56
72, 73	Interchange Ornament . . . . .	56
74, 75	Patterns . . . . .	57
76	The Lozenge . . . . .	57
77-80	Greek Frets . . . . .	58
81	Chapter-House . . . . .	59
THE CUBE: SQUARE AND OCTAGONAL PRISMS AND PYRAMIDS		
82, 83	The Cube: Prisms and Pyramids . . . . .	60
84, 85	Patterns . . . . .	62
86, 87	Plans and Elevations of Prisms and Pyramids . . . . .	64
88	Projection of Shadows of Prisms and Pyramids . . . . .	65
For Modelling		
89	A Corbel Table . . . . .	66
90	Square Billet Moulding . . . . .	67
91	Norman Capital . . . . .	68
92	Nail-Head Moulding . . . . .	69
93	A Mullion . . . . .	69
CHAPTER III. THE TRIANGLE AND HEXAGON		
94	The Triangle . . . . .	72
95, 96	Plans and Elevations of a Triangle . . . . .	73, 74
97, 98	Projection of Shadows of Triangle and Hexagon . . . . .	75, 76
Triangular and Hexagonal Forms		
99, 100	Patterns . . . . .	77
101	Manx Ornament . . . . .	77
102, 103	Borders . . . . .	78
104, 105	Norman Mouldings . . . . .	78, 79
106	A Moorish Band . . . . .	79
107	A 'Lotus' Band . . . . .	79
108	A Pyramid . . . . .	80
109, 110	Open Roofs . . . . .	81, 82

TRIANGULAR AND HEXAGONAL PRISMS AND PYRAMIDS	
FIGS.	PAGE
111, 112	Triangular Prisms and Pyramids . . . . . 83
113, 114	Plans and Elevations of Prisms and Pyramids . . . . . 84
115, 116	Projection of Shadows of Prisms and Pyramids . . . . . 85, 86
For Modelling	
117, 118	A Norman Moulding . . . . . 88
119	A Pattern . . . . . 89
120, 121	A Splayed Opening . . . . . 89, 90
122, 123	A Post and Coping . . . . . 91, 92
124, 125	A Triglyph . . . . . 93
CHAPTER IV. THE CIRCLE	
126, 127	The Circle . . . . . 95, 96
128	Plan of the Circle . . . . . 97
129, 130	Projection of Shadows of Circles . . . . . 99
Circular Forms	
131	S.P.Q.R. . . . . 101
132, 133	Bands . . . . . 101
134	Imbrication . . . . . 101
135, 136	Trefoils . . . . . 102
137	Braided Ornament . . . . . 103
138	A Cairene Dome . . . . . 103
139-144	Roman Mouldings . . . . . 104
145-149	Arches . . . . . 106
150	The Quatrefoil . . . . . 107
151	The Half-quatrefoil . . . . . 108
152-154	Decorated Tracery . . . . . 109
THE SPHERE, CONE, CYLINDER AND RING	
155-157	The Sphere, Cone, Cylinder and Ring . . . . . 110, 111
158-162	Plans and Elevations of the Sphere . . . . . 113
163-167	Plans and Elevations of the Cone . . . . . 114
168-172	Plans and Elevations of the Cylinder . . . . . 115
173-177	Plans and Elevations of the Ring . . . . . 116
178-181	Projection of Shadows of the Sphere, Cone and Cylinder . . . . . 117-119
182	Straight Lines on a Cylinder . . . . . 120
For Modelling	
183, 183 a	Strung Coin Moulding . . . . . 122
184, 185	Guilloche Moulding . . . . . 123
186, 187	Guttae . . . . . 124
188, 189	Ovolo Moulding . . . . . 125
190, 191	Pellet Moulding . . . . . 126
192, 193	Double-Cone Moulding . . . . . 127
194	Ball-Flower Ornament . . . . . 128

## PART II. (PERSPECTIVE)

## CHAPTER V. RECTANGLES

FIGS.		PAGE
1 <i>a, b</i>	<i>Perspective Projection of the Rectangle . . . . .</i>	130
2	Angle of Sight . . . . .	132
3, 4	<i>Perspective Projection of the Rectangle . . . . .</i>	133, 134
Perspective Centres of Straight Lines		
5	<i>Perspective Projection of Parallel Straight Lines . . . . .</i>	136
6	Division in any ratio of a straight line in Perspective . . . . .	137
7, 8	<i>Perspective Projection of Parallel Planes . . . . .</i>	138, 139
9, 10	<i>Perspective Projection of Oblique Planes . . . . .</i>	140, 141
11	Practical Work . . . . .	142
12 <i>a, b</i>	Roofs . . . . .	143, 145
13	A Buttress: Weatherings . . . . .	146
14, 15	Theory of Perspective: <i>Laws</i> . . . . .	148, 149
16, 17	<i>Perspective Projections of Shadows of Rectangles on two planes . . . . .</i>	152, 154
Rectangular Forms		
18	A Wall . . . . .	155
19	A Floor . . . . .	155
20	A Roof . . . . .	156
R 1, 2, 3	<i>Reflections in Perspective: Rectangles . . . . .</i>	157, 158

## RECTANGULAR PRISMS

21	Perspective Projection of <i>Rectangular Prisms</i> . . . . .	159
22, 23 <i>a, b</i>	Blocks of Buildings: Change of Picture Planes . . . . .	160
24, 25	<i>Rotation of Rectangular Prisms in Perspective . . . . .</i>	162, 163
26, 27	<i>Perspective Projections of Shadows of Rectangular Prisms on two planes . . . . .</i>	165, 166
Sketching		
28	A Timbered Ceiling . . . . .	168
29	A Bracket . . . . .	169
30	A Doorway . . . . .	170
31	A Font . . . . .	171
32	A Suggestion of the origin of the Corinthian Capital . . . . .	172
33	A Rock-cut Tomb . . . . .	173
33 <i>a</i>	A Spiral Stairway . . . . .	174

## CHAPTER VI. THE SQUARE AND OCTAGON

FIGS.		PAGE
34	<i>Perspective Projection</i> of the Square . . . . .	175
35-37	<i>Perspective Projection</i> of the Octagon . . . . .	176-178
38, 39	<i>Perspective Projection of Shadows</i> of the Square and Octagon on two planes . . . . .	179, 181
	Square and Octagonal Forms	
40	A Tiled Floor . . . . .	182
41	A Leaded Window . . . . .	183
R 1, 2	<i>Reflections</i> in Perspective: the Square and Octagon	184, 185

## THE CUBE AND SQUARE PRISM

42	The Cube and Extension in Perspective . . . . .	187
43	A Skeleton Cube in Perspective . . . . .	188
44	<i>Perspective Projection of Shadows</i> of the Octagonal Prism and Pyramid . . . . .	189
	Sketching	
45	A Renaissance Shaft . . . . .	190
46	A Norman Moulding . . . . .	191
47	A Portcullis . . . . .	192
48	A Great Pyramid . . . . .	193
49 a, b, 50	A Mastaba and Stepped Pyramid . . . . .	194, 195
51	Merlons . . . . .	196
52	An Octagonal Tower . . . . .	197

## CHAPTER VII. THE TRIANGLE AND HEXAGON

53-56	<i>Perspective Projection</i> of the Triangle and Hexagon	198-200
57, 58	<i>Perspective Projection of Shadows</i> of the Triangle and Hexagon . . . . .	201, 202
	Triangular and Hexagonal Forms	
59	A Tiled Floor . . . . .	203
60	Gables . . . . .	204
R 1, 2	<i>Reflections</i> in Perspective: the Triangle and Hexagon	205

## TRIANGULAR AND HEXAGONAL PRISMS AND PYRAMIDS

FIGS.		PAGE
61	<i>Perspective Projection</i> of Triangular and Hexagonal Prisms . . . . .	206
62, 63	<i>Rotation</i> of Triangular Prisms in Perspective . . . . .	208, 209
64	<i>Perspective Projection of Shadows</i> of the Triangular Prism and Tetrahedron . . . . .	210
65	<i>Perspective Projection of Shadows</i> of the Hexagonal Prism and Pyramid . . . . .	211
	Sketching	
66	A Headstone . . . . .	212
67	A Roman Coffin . . . . .	213
68	An Opening . . . . .	214
69	A Church . . . . .	215
70	A Wall Coping . . . . .	216
70 a	A Conduit-House . . . . .	217

## CHAPTER VIII. THE CIRCLE

71	<i>Perspective Projection</i> of the Circle . . . . .	219
72	Circles of a Shaft . . . . .	220
	Circular Forms	
73	A Floor Ornament . . . . .	222
74	An Arcade . . . . .	223
75	A Circle on a Ceiling . . . . .	223
76	Semicircular Tiles . . . . .	224
77, 78	<i>Perspective Projection of Shadows</i> of the Circle . . . . .	225, 226
R 1, 2	<i>Reflections</i> in Perspective: the Circle . . . . .	227, 228

## THE SPHERE, CONE, CYLINDER AND RING

79, 80	<i>Perspective Projection</i> of the Cylinder and Cone . . . . .	229, 230
81	<i>Rotation</i> of the Cylinder in Perspective . . . . .	233
82, 83	The Ring . . . . .	233
84-86	The <i>Ring</i> in Perspective . . . . .	234, 235
87-90	<i>Perspective Projection of Shadows</i> of the Sphere, Cone, Cylinder and Ring . . . . .	236-238
91	A Barrel-Vault: Modelling . . . . .	239
	Sketching	
92	A Pillar . . . . .	240
93	A Frieze from Petra . . . . .	241
94	Hadrian's Wall . . . . .	242
95	A Frithstool . . . . .	243
96	A Piscina . . . . .	244
97	A Gable Cross . . . . .	245

## A SURVEY

The earliest known examples of art are the figures of animals drawn by cave-men. These drawings gave birth to the art of writing. Architecture, however, seems to have arisen from the worship of mighty stones, and it was through this reverence that the Egyptians built the great pyramids as everlasting resting-places for the dead.

The art of building seems first to have grown to strength in the valleys of the Nile and Tigris, and the art of the valley of the Tigris may have been prior to that of Egypt. More is known, however, of the origin of the buildings of Egypt than of those of Western Asia, and it is therefore with Egypt that the story of architecture begins.

A few years ago it was thought that no Egyptian work existed of a date prior to that of the *Great Pyramid* (p. 80) of the fourth dynasty, but recently much work of the first three dynasties has been found. The earliest tombs took the form of almost solid masses in rough brick whose walls leaned inwards; and the finest tomb of this type which has been explored is at Meydum, where the first pyramid proper is found.

There is a connection between these rough brick tombs or *mastabas* (p. 194) and the later pyramids; the primitive grave developed into the mastaba. This was transformed into the step-pyramid, which developed naturally into the final or perfect form of the true pyramid. The Great Pyramid is practically a great mastaba.

As early as the beginning of the dynasties, the vault, the dome, and the arch appear in Egypt. An arch in its simplest form is the upper part of a horizontal hollow in a mass of clay or gravel. The vault was thought of as a continuous convex shell, although

it was produced by the addition of cakes of mud of equal size. It was this uniform vault which later under the Romans became the basis of the magnificent concrete construction of that people. The wedge arch might quite naturally have had a separate origin. Children have often been observed to make experiments in bridging empty spaces, and similar experiments might well have accounted for the origin of the true arch of masonry which is not found in Egypt except as a later development after the brick arch had existed for some 2000 years.

Arches frequently appear on the Assyrian slabs. The art of the valley of the Tigris, as early as the eighth and ninth centuries B.C., displays many similarities to Greek art; and in later days strong and constant Greek influence may be seen in the art of Western Asia. Though in Egypt, Babylon, and Crete there were three different centres of early civilization representing three different continents, architecture is usually considered to a large extent an Egyptian art.

The first appearance of European art is shown to have been in the islands of the Aegean with its centre at Crete, and discoveries show clearly that there was at that time communication between this civilization and that of Egypt. Remarkable finds have been made recently in Crete pointing to a very highly developed culture; and round tombs with beehive domes found here closely resemble the *chambers* (p. 80) in some Egyptian pyramids. The chambered mounds of Brittany probably belong to the period of these pyramids; and possibly Stonehenge, which is not savage but built of wrought stone, has something of the same style in it.

No direct connection has been found between early Aegean art and Greek art, but it seems that it was for Greece to undertake the task of collecting and perfecting the gifts of Egypt. The most remarkable feature of Greek art is the rapidity of its rise to its zenith, and of its subsequent decline.

Greek architecture has two modes, the *Doric* (Frontispiece) and the *Ionic* (Frontispiece), names which correspond to those of 'native' and 'colonial,' or 'old' and 'new.' The typical *plan of a Doric temple* (p. 47) with a cella having a portico is derived from the architecture of the Aegean age. The curious Doric frieze with



its *triglyphs* (p. 93) follows an old type of slab construction, and the cornice is an eaves-course of projecting rafter ends copied in stone. The older Parthenon at Athens was a fine example of seventh century Doric architecture. The Ionic style was more slender and graceful than the vigorous and masculine Doric. Its chief characteristic was a capital which was cut not from a square block but from a block which was longer one way than the other, the ends being curved into a spiral. The Ionic cornice with its *dentils* (p. 48) is simply a rendering in stone of the overhanging part of a flat roof.

The most famous example of Greek art at its highest development is the Parthenon, which was completed about 435 B.C. The Ionic order was probably adopted about the middle of the sixth century B.C. From a highly enriched form of the Ionic was evolved the luxurious *Corinthian order* (p. 171), an interesting example of which is the monument of Lysicrates at Athens.

To the Greeks we owe the most perfect type of tomb, also of theatres, and of stoaes or covered colonnades; and to descend to detail it is to their invention or improvement that we owe the modern mosaic floor, panelled doors, the *spiral stairway* (p. 174), and the turned legs of furniture. Nor, of course, are the gifts of Greece to the world confined to the list just given: for through Rome and Roman civilization Greece handed on some of its influence to the whole of Europe.

The debt of Rome to Greece, in this as in all the other arts, needs no proof; she received her gifts especially through the medium of Sicily where magnificent schools of architecture existed from an early period. When Rome had acquired all she desired of Greek art she soon outstripped all competitors, and in the first and second centuries A.D. she became the mistress of the world and the centre of its culture. Engineering, particularly military engineering, is the prominent feature in her architecture, and as such it is peculiarly rich in hints to modern builders, who may gather from her work methods of vaulting in concrete, and of building with pots and pipes, and even 'tricks of the trade' such as the use of crushed brick in mortar. The most typical Roman work was in concrete, and all the greatest buildings of Rome were faced with plaster.