



Bodleian Libraries

UNIVERSITY OF OXFORD

This book is part of the collection held by the Bodleian Libraries and scanned by Google, Inc. for the Google Books Library Project.

For more information see:

<http://www.bodleian.ox.ac.uk/dbooks>



This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 2.0 UK: England & Wales (CC BY-NC-SA 2.0) licence.



HANDBOOK OF
GREEK ARCHÆOLOGY



D
i 3
311

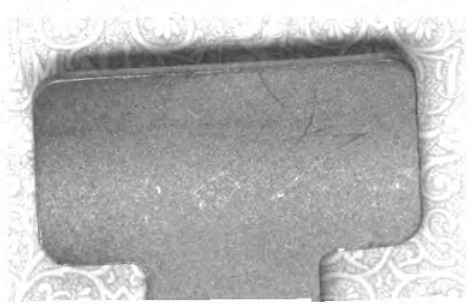


—

~~XIV. C.~~

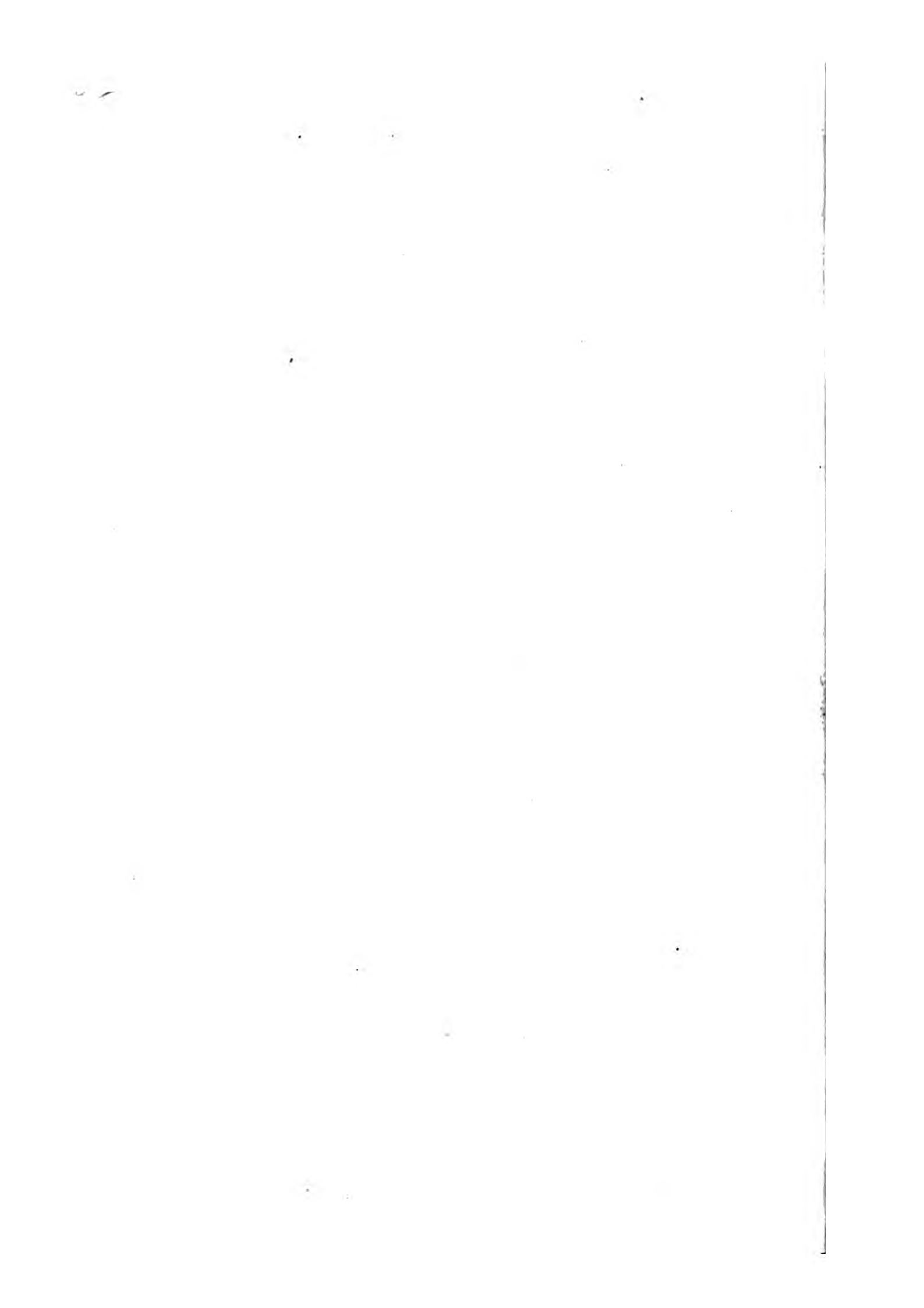


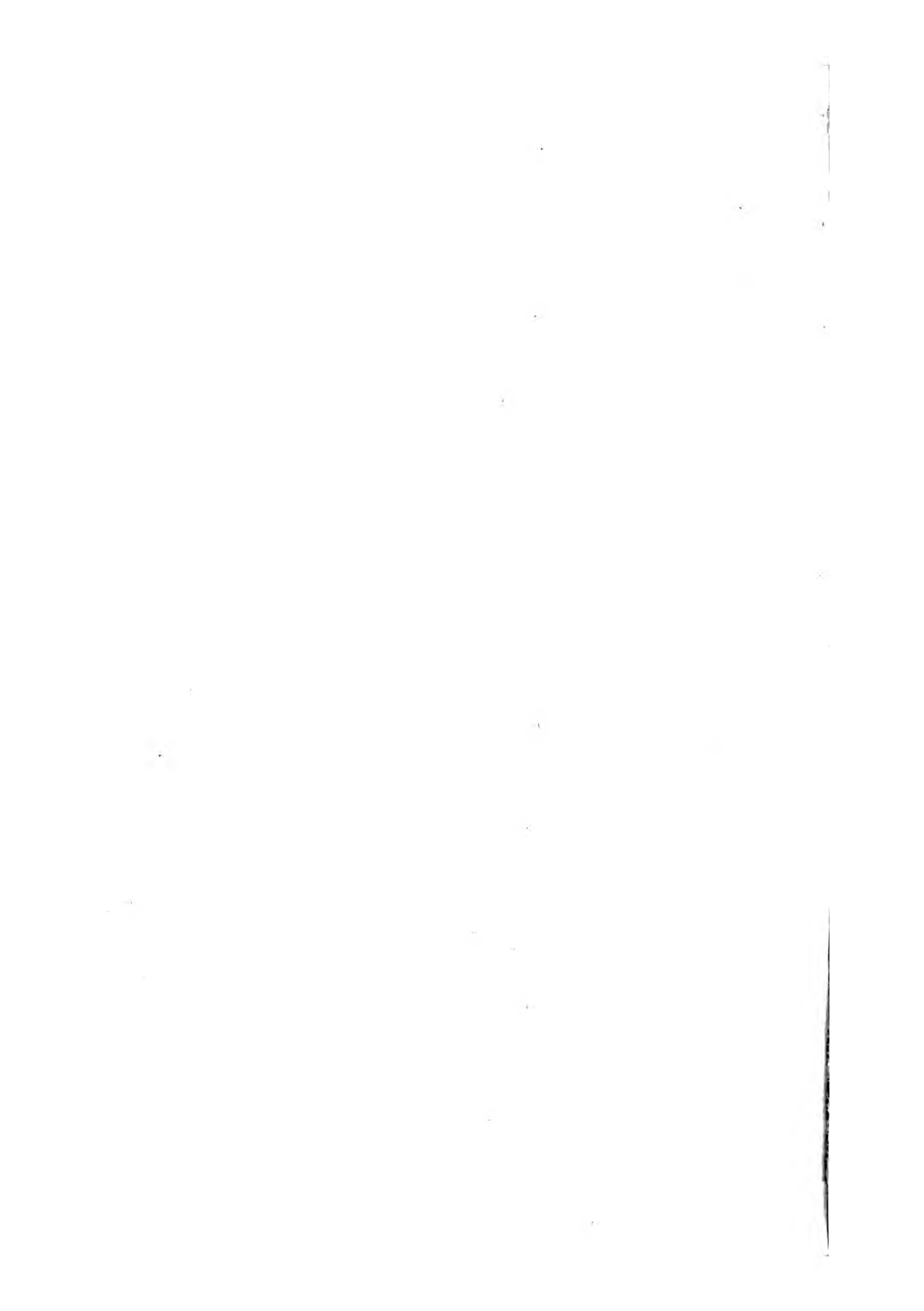
Oxford University
GALLERIES.

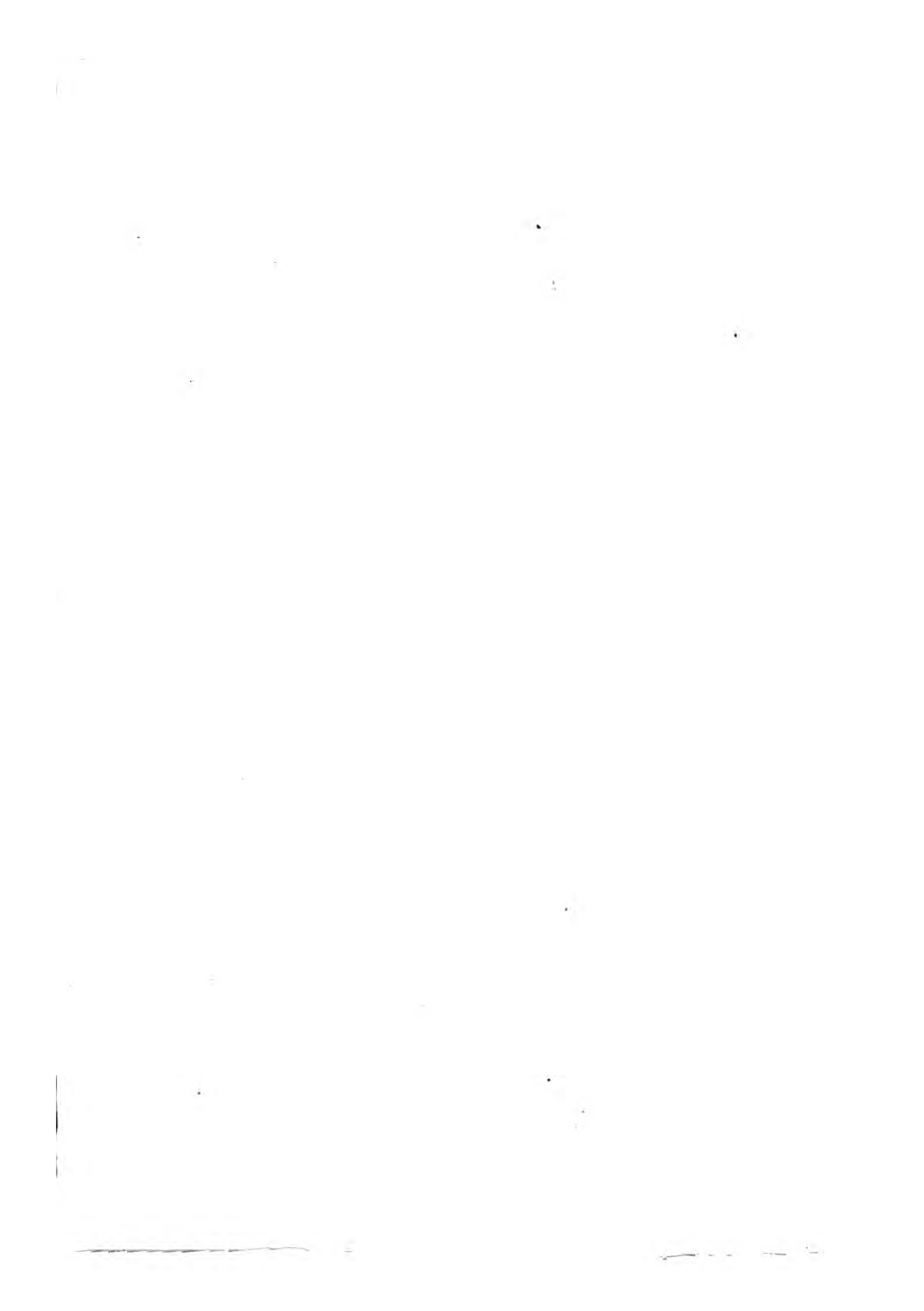




302219084T









Julia daughter of Augustus - as Minerva.
Livia - as Juno.

Sardonyx Cameo - British Museum.

John Murray, Albemarle Street.

frontispiece.

HANDBOOK
OF
GREEK ARCHÆOLOGY.

VASES, BRONZES, GEMS, SCULPTURE, TERRA-COTTAS,
MURAL PAINTINGS, ARCHITECTURE, &c.

BY

A. S. MURRAY, LL.D., F.S.A.

(KEEPER OF GREEK AND ROMAN ANTIQUITIES IN THE BRITISH MUSEUM).



With numerous Illustrations.

LONDON:
JOHN MURRAY, ALBEMARLE STREET.

1892.



LONDON:
PRINTED BY WILLIAM CLOWES AND SONS, LIMITED,
STAMFORD STREET AND CHARING CROSS.

P R E F A C E.

To the Society of Antiquaries of Scotland I ascribe the origin of this book. By their choice the subject of the Rhind Lectures in Edinburgh for 1887 was "Greek Archæology," and at their invitation I endeavoured to explain to a public audience the main features of that subject.

Afterwards, when a question of publication arose, it seemed the best course to make those lectures serve as the basis of a "Handbook of Greek Archæology," for which there were many demands. There has been delay in carrying out this plan, but the delay has been caused chiefly by the extensive additions and alterations which were necessary to meet the purpose of a Handbook.

In choosing the title, "Handbook of Greek Archæology," I could not but reflect on the changes that have come about since 1848, when the third and last edition appeared, of C. O. Müller's famous "Handbuch der Archæologie der Kunst." One would have expected that a book, so singularly useful and successful in its time, would have passed through

many editions in this long interval, each new edition brought up to the growing wants of the day. But the book has neither been altered nor superseded, and if we ask why this is so, we find no better answer than that Müller's plan, lending itself more readily to the accumulation of facts than to the statement of generalizations arising out of facts, broke down under the rapidly increasing mass of new materials.

Since 1848 there has been a continuous effort, especially in Germany, to group the innumerable facts of Greek Archæology and to deduce from them general truths. The result is that we have now a large body of accepted truth, to which we can refer as such, without at every step citing a mass of facts in support of it. Doubtless there is in the early history of Greece much that is still obscure and uncertain; but on the whole it seemed to me that the time had now come when it was possible to construct a Handbook of Greek Archæology in reliance on well-discussed and generally accepted truths, leaving aside the accumulation of details, and maintaining a constant endeavour to state as broadly as was in my power what experience has taught me to be the leading features of the subject. It seemed to me also that a Handbook on these lines was specially necessary in this country, where the materials of study, amassed in the Greek collections of the British Museum, are so unrivalled in their wealth, and where of late years a wide interest in the subject has taken root.

The first chapter deals with the primitive condition

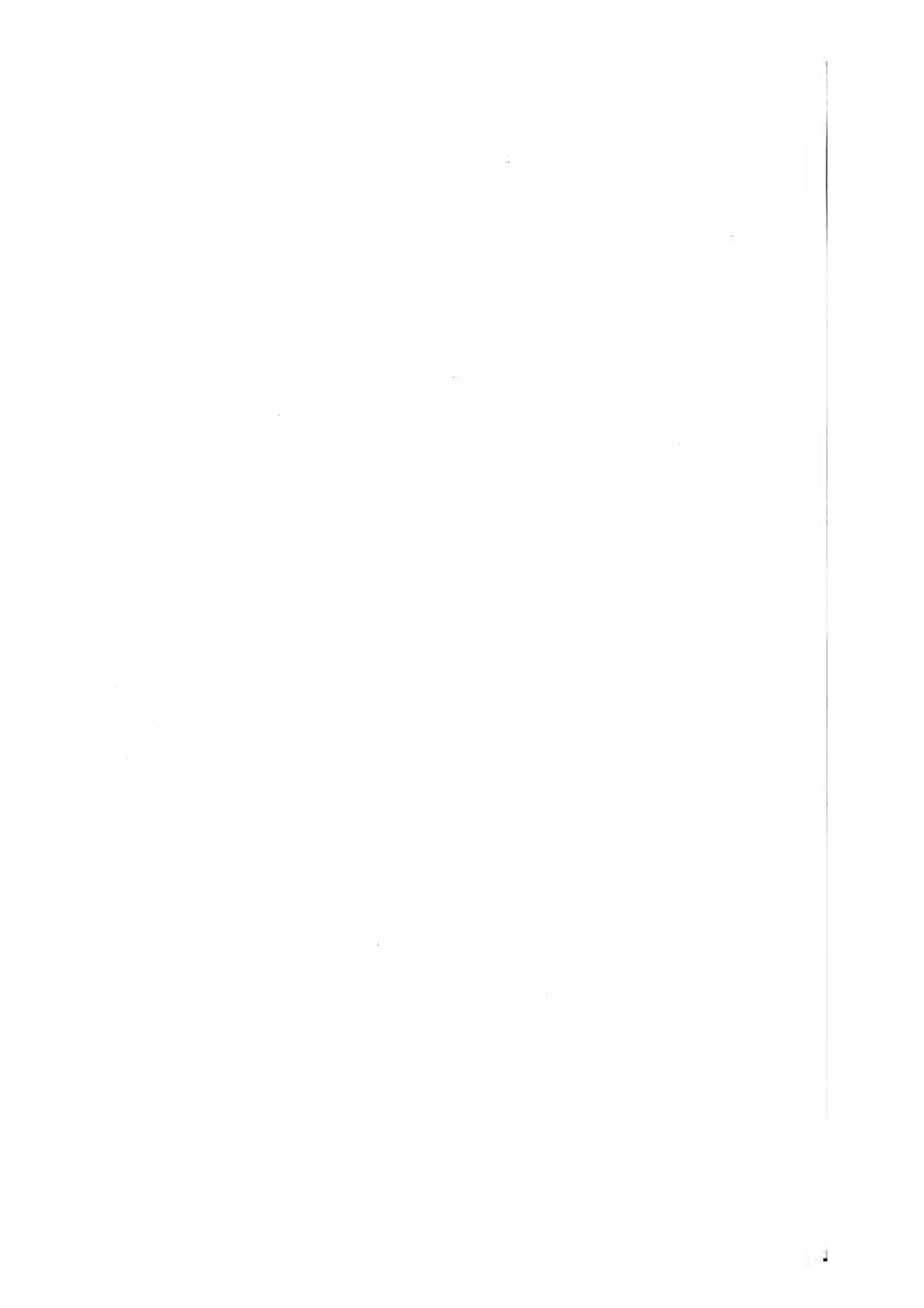
of artistic industries in Greece down to the stage at which the various arts began to assume a distinct and independent position. From that point I have traced the history of each art separately, in the belief, founded on experience, that more was to be gained by keeping continuously before the mind the growth and development of one branch of art at a time than by taking them all collectively in successive periods.

In the chapters on sculpture, vase-painting and architecture I have sought to give prominence to the main facts, but have avoided the many questions of minor interest for which the student desirous of prosecuting the matter farther may turn to special books on these subjects. But in the chapter on painting I have allowed myself an apparently disproportionate space, on the ground that this branch of study has not yet received the attention it deserves in this country.

To those who may miss a chapter on Greek coins, with their great and varied artistic beauties, I can only plead that Greek coins, in justice to themselves, would require more space than could be accorded them in a Handbook side by side with the higher and more spontaneous arts of Greece.

A. S. MURRAY.

BRITISH MUSEUM,
November, 1891.



CONTENTS.

CHAPTER	PAGE
I. INTRODUCTION	1
II. PRIMITIVE PERIOD, EARLIEST STAGES OF POTTERY, GEM-ENGRAVING, WORK IN GLASS, BRONZE, GOLD, ETC.	6
III. CONTINUATION OF THE HISTORY OF VASE- PAINTING	58
IV. DESIGNS INCISED ON BRONZE	117
V. ENGRAVED GEMS	146
VI. SCULPTURE IN RELIEF	174
VII. STATUARY	239
VIII. TERRA-COTTAS	310
IX. PAINTING	348
X. ARCHITECTURE	444
INDEX	475

LIST OF ILLUSTRATIONS.

	PAGE
Cameo	<i>Frontispiece</i>
Vase, black ware	6
Marble xoanon	9
Aryballos, incised ware, Cyprus	10
Primitive vases	Pl. I.
Vases from Cyprus.	12
Primitive vases	Pl. II.
Vase of variegated glass	18
View of tombs at Mycenæ	20
Ornaments of glass, Ialysos	21
Ornaments of gold, Mycenæ	22
Gold cups, Mycenæ	24
Glass rosettes, Ialysos	26
Vases with aquatic designs	27
Vase with spiral patterns	28
Pseudamphoræ, Ialysos	28
Ivory statuette, Ialysos	30
Bronze weapons, Ialysos	31
Primitive vases	Pl. III.
Ænochoè, geometric patterns	33
Vases with geometric patterns	34
Lebes, geometric patterns	35
Ænochoè, Phaleron class.	36
Lebes (Burgon), Athens	37
Primitive engraved gems	41-46
Bronze sword, Mycenæ	51
Ænochoè, Camiros	59
Lebes, Naucratis	60
Ænochoè, Camiros	62
Athenian lekythos.	Pl. IV.

	PAGE
Vase (Polemarchos), Naucratis.	69
Kylix, Cyrenè style	70
Pinax, Camiros	78
Ænochoè, Corinthian	80
Situla, Daphnæ	81
Amphora, black figure	87
Hydria, by Panphæos	90
Kylix, red figure	Pl. V.
Amphora	Pl. VI.
Two red figure vases	Pl. VII.
" "	Pl. VIII.
Sphinx vase	Pl. IX.
Panathenaic amphora	Pl. X.
Costume	Pl. XI.
Bronze cuirass, Olympia	122
" disc, incised	123
" mirror case, incised	124
" Etruscan mirror	129
" " cista	136
" " "	142
Border of cista	143
Engraved gems, intaglios	Pl. XII.
Cameo, Julia, daughter of Augustus	Pl. XIII.
Lion gateway, Mycenæ	178
Bronze gate, Balawat	179
" relief, Athenè	189
Doric temple at Assos	192
Frieze of Doric temple at Assos	194
Reliefs of pediments, Athens	196, 197
Relief, warrior of Marathon	198
Selinus, Metope	200
Drum of archaic temple, Ephesus	202
Slab of Harpy tomb	204
Centre of west pediment, Olympia	Pl. XIV.
Part of Parthenon frieze	Pl. XV.
View of Panathenaic procession	212
Metopes of Parthenon	215, 216
Slab of Phigaleian frieze	219
Slab of Victory Temple, Athens	220
Slab of Mausoleum frieze	223
Bronze, Victory slaying ox	227

	PAGE
Bronze, relief on mirror-case	229
„ relief on mirror-case, two Athenes.	231
One of the bronzes of Siris	233
Relief, dancing figure, Athens	235
Terra-cotta panel	236
Polledrara bust	241
Torso from Marion, Cyprus	246
Hera of Samos, Louvre	247
Nikè of Archermos, Athens	247
Bust of Acropolis statue	251
„ „ „	252
Statue by Antenor.	254
Harmodios and Aristogeiton	255
Bronze head, archaic, Athens	262
Victory of Pæonios, Olympia	265
Theseus of Parthenon	Pl. XVI.
Fates of Parthenon	Pl. XVII.
Statue of a Diadumenos	276
Caryatid of Erechtheum	277
Bronze leg	278
Hermes, by Praxiteles	Pl. XVIII.
Female figure mourning	284
Demeter of Knidos.	Pl. XIX.
Two large statuettes	Pl. XX.
Bronze portrait head	292
Marble head, Pergamene school	299
Boy picking thorn from foot	300
Bronze boxer, Rome	304
„ athlete, Rome	305
Tanagra statuettes.	311-313
Mould for terra-cotta statuette.	318
Terra-cotta mask	320
„ group from Centorbi	322
„ heads from Sicily	326
„ primitive figure	327
„ figure from Pompeii	333
„ Bellerophon slaying Chimæra	337
„ Perseus slaying Gorgon	338
„ archaic figure	340
„ Hermes Criophoros.	341
Painting, bull of Tiryns	352

	PAGE
Pompeian fresco, lady painting	395
Incised design on ivory	396
Fresco from Farnesina Gardens	406
„ house of Germanicus	409
„ garden scene, Porta Prima	412
Examples of Mural Decoration	414-423
Stucco reliefs, Farnesina Gardens	440
Acropolis of Athens, view	444
Tomb of Agamemnon, Mycenæ, plan	446
„ „ „ pilaster restored	447
House at Piræus, plan	453
„ of the Quæstor, Pompeii	454
„ with verandah, Pompeii	456
Doric temple, Ægina	457
Doric order	458
Ionic order	459
Corinthian order	460
Monument of Lysicrates	464
Plan of Parthenon	465
„ temple at Phigaleia (Bassæ)	465
„ „ of Zeus at Agrigentum	466
Telamon from temple of Zeus at Agrigentum	469

HANDBOOK OF GREEK ARCHÆOLOGY.



CHAPTER I.

INTRODUCTION.

THE tendency of Greek archæology for a considerable time past has been to confine observation and study to works of sculpture and painting. It admits such other productions of art as may be classed with sculpture and painting, in however humble a degree; for example, engraved gems, coins, designs incised on bronze, and even inscriptions, whether painted or incised. But the artistic element is insisted on as the guiding principle.

This tendency has been created by the vast accumulation of material resulting from excavations in Greece, in Greek colonies, and in districts where Greek works of art were largely imported, as in Etruria. It has been found necessary to reduce this material to order, and in this endeavour to bring about order, it has been perceived that the most natural bond by which all this variety of productions could be united and presented in a continuous system was the bond of artistic development.

But though Greek archæology, in its present condition, may be described as principally a study of

Greek art and handicraft, yet this is not necessarily its whole scope. Statues, painted vases, gems and coins are works of art in the first instance ; but when their artistic position shall have been settled, we may find that there are other considerations also attaching to them. To take the painted vases as an example, there was a time when the chief attraction they exercised lay in the mythical or legendary subjects which they represented. It was perfectly just to take that view of the vases, because the subjects painted on them were such as to touch closely on spheres of thought which had been no monopoly of the artist, which had in fact been shaped to his mind by other agencies. But the view was inopportune just then, when the artistic side of the question had not been settled. That is to say, it was inopportune to proceed to the interpretation of the subjects represented in works of art when as yet the technical manner and method of representing them were in doubt.

It is not argued that interpretation of subject should stand over till every artistic doubt has been removed ; but only that the interpretative method should at least be so far allied with the artistic as to enable the student, on every possible occasion, to compare the different manner of different centuries in the representation of one and the same subject. Dio Chrysostom (Orat. 52) tells of his having one morning taken up three dramas of Æschylus, Sophocles, and Euripides, each founded on the painful story of Philoctetes, and he goes on to state the characteristic differences of the three dramas. Similarly the interpretative method of study might take, as one example out of many, the battle of Greeks and Amazons as represented on works of art of different periods, notably on the three friezes

of Phigaleia, Athena Nikè, and the Mausoleum. If, then, the artistic element must be the first consideration in Greek archæology, and if its main features have by this time been defined with reasonable accuracy as regards those periods of art in which mythical and legendary subjects abound, it will be undoubtedly useful to make a simultaneous study of those subjects; and, if useful, all the more a duty because, while the history of Greek art may in a manner be prosecuted without a knowledge of Greek literature, the subjects represented by it cannot be enquired into without that knowledge. And, in fact, a knowledge of that literature in its application to works of art constitutes a chief instrument in the hands of the Greek archæologist.

It is to be observed also that, in tracing the artistic progress of a nation through a long period of time, and amid many varieties of artistic production, it is the custom to go continuously forward, noticing mainly the salient points of transition from one stage to another, overlooking what art itself had overlooked in its progress or haste, and, in short, regarding the development, such as it was, as inevitable. No convenient opportunity presents itself of blaming one age for the neglect of an idea, perhaps lying on the surface, which a subsequent age has observed and utilised. It is rare that an occasion offers for the student to stop and consider what has remained unaltered in the changes from age to age—what, in fact, constitutes the essentially Greek element in works of art. We know the changes assignable to particular periods, but we do not fully observe what has remained unchanged. To many who have made no special study, this unchanging element of Greek art appeals with

force, and continually awakens a deep sense of delight, and therefore the student should be advised never to let out of view the permanent, essential character of Greek art.

Take any chance piece of Greek art that may come in our way ; it will most probably represent a subject in which gods or legendary heroes are engaged, a scene which looks as if it may have happened at any time and in any place. No doubt there are also numerous scenes from daily life, serious or grotesque ; but the overmastering tendency was to impregnate the mind with a sense of the existence of higher beings, who governed the world always and from all time. For this principle we have the phrase "Greek idealism" ; but, amid the study of details, we are apt to forget it and its vast potency. Or, to take a strictly technical point of view, is it not strange that in the latest stage of vase-painting, we should find, coming up again conspicuously, certain elements of decoration, such as the rosette and wave pattern, which for centuries had been abandoned ? The new application of these ornaments is so different in many ways from the old application as to exclude any question of a conscious revival of them. It seems rather as if the old method had for a long period been relegated to obscurity by the advance of a higher and nobler conception of art ; but had subsequently, when the higher impetus failed, re-asserted its original power and attraction. The old age of art may, like old age in man, fall back naturally on the delights of its youth. At all events, it is worth the student's while to endeavour, as often as possible, to get outside of the study of mere progress, and to think of what was not progressive, but innate, in the Greeks.

The subjects represented in Greek art are naturally most interesting during the periods in which art went hand in hand with the higher literature of the nation, when art, like poetry, was master of its technical processes, and was directing that mastery to the region of imagination and fancy, where the best minds of the nation delighted to wander. Art was then at its best ; but there came a time when the national imagination fell into decay, and when art retained little more than its technical or manipulative skill. In that period there is obviously nothing for the interpretative method to do but to indicate broadly the state of things. So also, going back to early times, we find a long period of primitive, and then archaic art, in which there had been no demand on the imagination of the skilled workman, and little to interpret in the way of subject.

We have to deal with (1) a primitive period of mere handicraft ; (2) an archaic period, in which the imagination of the workman comes into play and gradually raises him into an artist ; (3) a period of maturity both as regards imagination and skill ; (4) a period of decline of the imagination and negligence of execution.

It is proposed to consider the remains of Greek art and industry according as they fall within these four periods. In the first period we shall class together the various handicrafts in their contemporaneous character. But subsequently when each handicraft emerges into what may be called a fine art, we shall take up each separately and follow it through its various stages to its close.

CHAPTER II.

PRIMITIVE PERIOD, EARLIEST STAGES OF POTTERY,
GEM-ENGRAVING, WORK IN GLASS, BRONZE, GOLD, ETC.

ἀγαθὴ δ' ἔρις ἦδε βροτοῖσι
καὶ κεραμεὺς κεραμεῖ κοτέει καὶ τέκτονι τέκτων.

HESIOD, 'Works and Days,' 24.

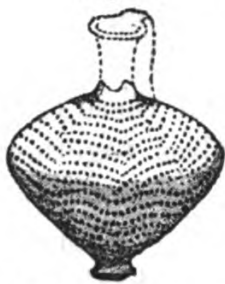
IN view of the changing conditions under which primitive people have always lived, it is not surprising that they should have left no more permanent memorials of their existence than their tombs. All else is apt to be swept away by subsequent civilization. The graves remain, and it is to them that we must first turn in Greece, as in other ancient countries. For the present we must be content without dates. In time it may be that some more definite conception

may arise than is now conveyed by the vague word "primitive."

Plate I. is intended to illustrate the pottery found in primitive tombs, and here it should be observed that the contents of such tombs very largely consist of earthenware. Nos. 1, 2, 3, 8, and Fig. 1 represent the oldest class. It will be seen that the patterns on them have been produced by incised, or punctured,

lines, arranged in zigzags, much as on the primitive pottery of Britain, but with this difference, that the

Fig. 1.



Black ware—punctured lines. *Cyprus*.
Brit. Mus.
Ht. 3¼ in.

examples from Greece (see Pl. I. No. 1) are much more finely executed than those of Britain. Again, it should be observed that, in the Greek specimen just referred to, there is the primitive characteristic of want of handles, or nearly so. We may, indeed, regard as rudimentary handles the two projecting ears on the sides of the vase, through which vertical holes are pierced, apparently for a cord to pass, and thus to provide a means of carrying the vase. Such vases seem to have been made to be held with both hands, and doubtless this was the form of vase that was first invented. We do not suggest that this vase actually carries us back to the very first invention of earthenware in Greece. The decoration is too rich for such a stage, and, further, we see from the vase No. 2 (Pl. I.), which was found in the same set of tombs, that it has a handle and a skilfully-shaped mouth, both of which facts are evidence of at least a secondary stage of advancement—a stage, however, in which the older shapes and manner of decoration were still retained.

It may be convenient to describe here the mode of burial, and the general contents of the tombs in which these two Greek vases were found (Pl. I., Nos. 1 and 2). They were found in tombs in the small islands of Amorgos and Antiparos, excavated by Mr. J. Theodore Bent¹ in 1884. These graves, he says, were of irregular shape, oblong, triangular, or square, with three stone slabs forming three sides, the fourth side being built up of rubbish, while on the top was always a covering slab. On an average the graves were only three feet long, two feet wide, and seldom

¹ 'Hellenic Journal,' V. p. 47.

more than two feet deep. Most of them contained bones of more than one person. In one small grave were two skulls.

Plutarch (Marius 21) says that after one of the great battles of Marius the Massiliotes made fences of bones round their vineyards, and that the bodies in the course of decay enriched the soil, the decayed matter being carried deep into the earth by the rains of winter, and thus producing rich crops. Plutarch refers to this as illustrating what had been said by the poet Archilochus, who was a native of Paros, and lived about 700 B.C., as to horrid burials of this kind. The evidence of the Iliad goes to prove the burning of bodies in the case of illustrious persons, as of Hector (xxiv. 791), and of Patroclos (xxiii. 164). Possibly the same is to be understood of Sarpedon, whose body was carried off to Lycia by Sleep and Death (xvi. 672) to be buried in a tomb with a stelè. Ordinary mortals may have been differently buried. The contents of the tombs in Amorgos and Antiparos were chiefly earthenware, but there were also some small and very rude representations of the human figure cut in marble, as in Fig. 2, several small articles made of bronze, copper, or silver, and a number of chips of obsidian, such as may have served as knives, or, at all events, to incise the patterns on the vases. Mr. Bent observed that a hill in Antiparos was strewn with flakes of obsidian.

In one tomb was a marble vase of precisely the same shape as No. 1, Pl. I., but without decoration. We may assume the marble to have been obtained in the neighbouring island of Paros. Marble vases of exactly the same form have been found in Egypt, and these also, or at least the material of them, had probably been imported from Paros, though at what time we have no

means of knowing. This much is certain, that the marble vase from Antiparos could not have been fashioned with obsidian tools, whence it is to be inferred that, though obsidian may have continued in use till then, yet a better material, such as copper, must also have been available for tools.

Herodotus (ii. 86), describing the process of embalming as practised in Egypt, apparently in his own time, says that at one part of the process a sharp knife, of what may be identified as obsidian or flint, was used, λίθῳ Αἰθιοπικῷ ὄξει. Elsewhere he speaks of an Ethiopian contingent in the army of Xerxes, which had arrows tipped with this same sharp Ethiopian stone, from which we ought perhaps to conclude in favour of flint rather than obsidian. At all events, these passages attest the use of sharp stone tools at a comparatively late time among people living remote from civilisation.

There is in Athens a small marble figure found in one of the tombs at Amorgos, representing a person playing on the lyre. The attempt to sculpture such a subject implies a state of civilization no small measure in advance of the general contents of these tombs. We may therefore conclude that the contents of these tombs indicate both poverty and primitiveness—a poverty in which primitive ways of vase-making and such-like were retained, when in more favoured districts a considerable advance had

Fig. 2.



Small marble figure.
From *Paros*.
Brit. Mus.
Ht. $5\frac{1}{4}$ in.

been achieved. Small marble figures, of varying degrees of rudeness, have been found from time to time in the Greek islands, and have constantly been associated with primitive civilization (Fig. 2). A number of specimens are exhibited in the First Vase Room of the British Museum.¹

We have seen that the tombs of Amorgos and Antiparos produced chiefly earthenware, that the mode of decoration takes the form of incised zigzag lines, that handles exist only in a rudimentary stage, if at all, and that these several characteristics are to be met with, more or less, in the primitive barrows or graves in Britain, if not, indeed, in primitive sepulture in other countries also. At this point it may assist us to take note of the distribution of this primitive class of earthenware so far as it is indicated by the various localities in which the vases on Pl. I. have been found. Here, then, is a list of them:—



Aryballos; incised ware. Cyprus. Brit. Mus. Ht. $4\frac{1}{4}$ in.

- Pl. I., No. 1. *Antiparos*. Coarse reddish ware; incised patterns. Height, $5\frac{1}{2}$ in.
 „ „ 2. *Antiparos*. Coarse reddish ware; incised patterns. Height, $5\frac{1}{4}$ in.
 „ „ 3. *Egypt*. Black ware; punctured lines. Height, $2\frac{1}{2}$ in. This vase is identical in ware, shape and decoration with other vases in the British Museum, found by M. Navile at Katanah, in Egypt, with flint chips and with scarabs of the twelfth and thirteenth Dynasties.

¹ See also 'Mittheilungen d. Inst. Athen.,' 1891, p. 46.

PLATE I.



1.



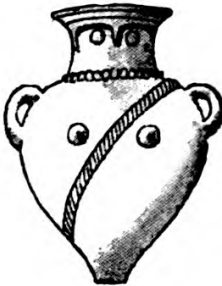
2.



3.



5.



4.



6.



7.



8.



9.



10.



11.



12.



13.



14.



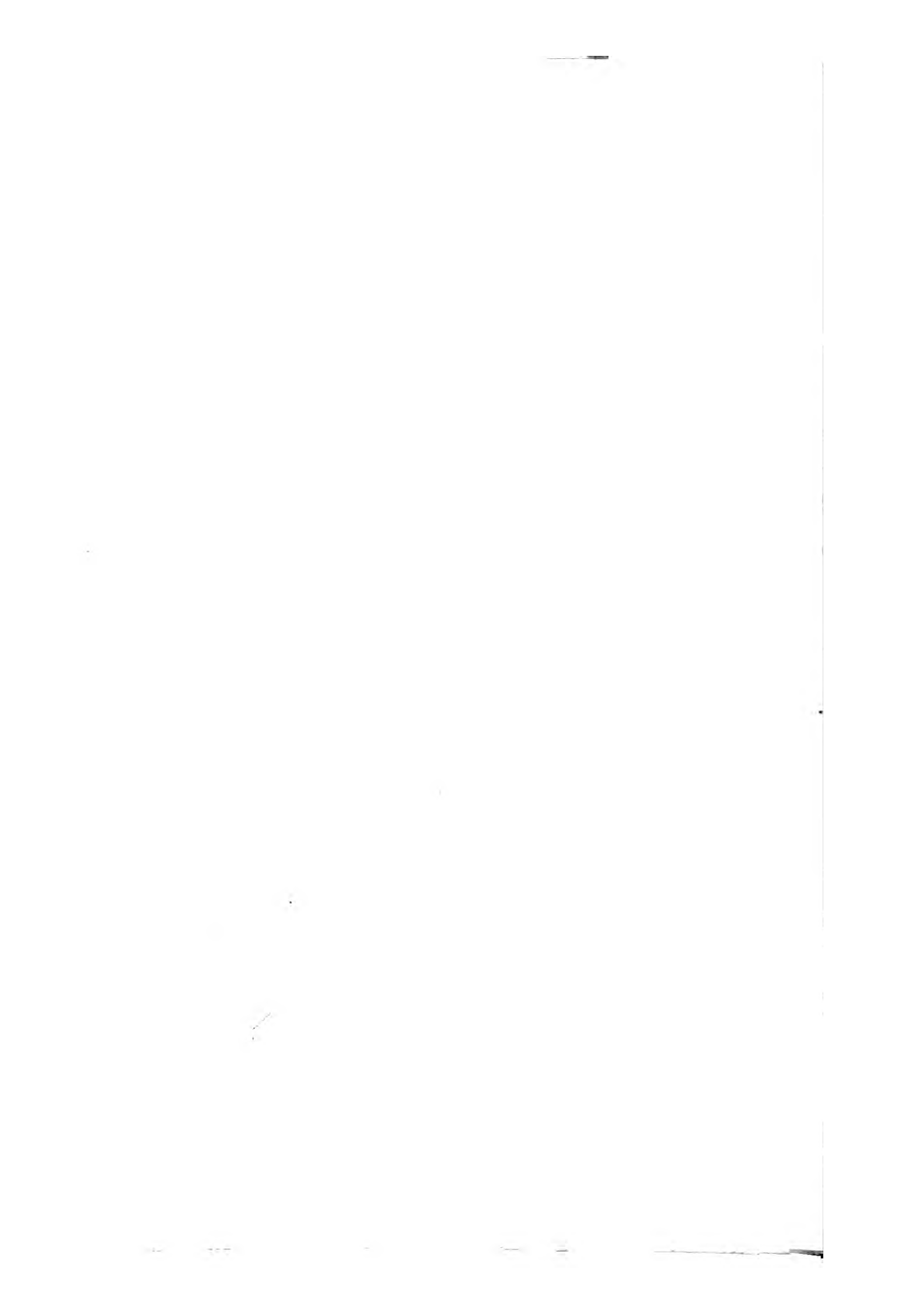
15.



16.

VASES OF THE PRIMITIVE PERIOD.
All in Brit. Mus. except Nos. 4, 9, 10.

[To face p. 10.]



- Pl. I., No. 4. *Hissarlik* (*Troy*?). Raised patterns. Height, 2 ft. 2 in.
- „ „ 5. *Albano, in Italy*. Black ware; in shape of hut (*tugurium*). Height, 9½ in.
- „ „ 6. *Albano, in Italy*. Black ware; punctured lines. Diameter, 5½ in. Nos. 5 and 6 were found with a number of other vases of black ware, now in the British Museum, under a stratum of *peperino* at *Albano*. The conditions under which they were found, together with the general absence of handles, and the manner of decoration, leave no doubt of their being of a primitive character.
- „ „ 7. *Camiros, in Rhodes*. Reddish ware; incised patterns. Diameter, 7 in.
- „ „ 8. *Sesto Calende, Lago Maggiore*. Black ware; incised patterns. Height, 9¾ in. This vase contains ashes: with it were found other pottery of the same kind and bronze fibulæ of a primitive type. Very possibly primitive industries had survived in this district centuries after they had been abandoned in Greece. At the opposite extreme of Italy, on the site of the Greek colony of *Sybaris*, a necropolis (*Torre del Mordillo*) has been excavated in recent years (153 tombs had been opened, it is stated in the Report for September, 1888, 'Notizie degli Scavi-Academia dei Lincei,' 1888, pp. 239, 462 and 575, plates 15 and 19). The pottery is of the rude *bucchero* kind, and the objects most constantly found are bronze fibulæ. *Pigorini* believes this necropolis to be earlier than 720 B.C., and to rank in a measure with the first period of the antiquities of *Suessala*.

- Pl. I., No. 9. *Hissarlik*. Height, $12\frac{1}{2}$ in.
 „ „ 10. „ Height, 11 in.
 „ „ 11. *Cyprus*. Brownish ware; polished; raised patterns. Height, $4\frac{1}{4}$ in.
 „ „ 12. *Cyprus*. Brownish ware; polished; raised patterns. Height, 4 in.
 „ „ 13. *Egypt*. Plain black ware. Height, $2\frac{1}{2}$ in.
 See note on No. 3.
 „ „ 14. *Cyprus*. Incised patterns. Height, $4\frac{1}{4}$ in.
 „ „ 15. „ „ „ Length, 11 in.
 „ „ 16. „ Painted patterns. Height, $3\frac{3}{4}$ in.

In Pl. I. we have gone a little beyond the most primitive stage of earthenware, with its incised zig-

Fig. 4.



Brown ware. *Cyprus*.
 Brit. Mus.
 Ht. $3\frac{1}{4}$ in.

Fig. 5.



Vase with patterns in white on brown ground. *Cyprus*.
 Brit. Mus.
 Ht. 4 in.

zags, and have anticipated the next step, when the utility of handles and conveniently-shaped mouths was fully recognised, when in fact the handle, mouth, and neck had become important factors. We see this in the vases from Cyprus, Nos. 11, 12, 14, and Fig. 4. We see also that contemporary with this the fashion of incised patterns was, partially at least, given up, patterns in relief taking their place to a large extent; and lastly, in Nos. 16 and Fig. 5 we find that the patterns are painted

on the vase in white on a brown ground. But notwithstanding these few variations the whole of the pottery in Pl. I. may be considered to be primitive. As to actual date, there is no suggestion beyond what may be extracted from the circumstance, noted in connection with No. 3, that scarabs of the 12th and 13th Egyptian dynasties were found with precisely similar vases. That would mean something earlier than 2000 B.C. It is true that the presence of scarabs of a particular dynasty does not in Egypt always imply contemporaneousness in the objects found with them; but in this case the finding of flint implements in the same tombs speaks for the high antiquity of these vases. Considering the great antiquity of Egyptian civilization, that is not strange. Nevertheless a date which may hold good in Egypt need not apply to Greece or Italy. On the contrary the variety of localities in which these primitive vases have been found distributed goes to prove that this kind of earthenware has been independently produced by various nations in the earliest stages of their existence whensoever in the world's history these stages may have occurred.

In these circumstances the only safe principle we can follow as regards Greece is to go backward into antiquity by steady, authentic stages, until we reach a period where systematic evidence fails. At present our evidence cannot be said to go further back than 700 B.C. At that date, as will be seen later on, art had in certain respects attained a degree of skill which may be held to presuppose a considerable period of preliminary training, a period in which the primitive vases will naturally fall. The danger is that in dealing with particular sets of these

vases we may sometimes overlook the circumstance that this primitive method of vase making must have been kept up in outlying localities long after it had been abandoned in places favoured by the advance of civilization. While right in calling them primitive in character, we may be wrong in assigning them to a positively primitive date. For all we can say to the contrary this may be true, for example, of the pottery found at Hissarlik by Dr. Schliemann.

Among the primitive vases not a few are made of a black or dull greyish black, of which we may select Fig. 1, Nos. 3 and 13 as examples. Everything points to the very high antiquity of this ware. On the other hand we can certainly trace the production of it down to historical times in Greece. For instance, we have from Camiros in Rhodes a plate of a greyish black colour, on the foot of which the letters KA have been incised previous to the firing of the vase. At the most the forms of these letters cannot be proved to go beyond the end of the 7th cent. B.C. They resemble the writing of the Greek mercenaries at Abu Simbel on the Nile, of whom one at least describes himself as a native of Ialysos, a neighbouring town to Camiros in Rhodes. But the letters on our vase may in fact be later even than this date.

In the oldest quarter of Camiros were found other examples of black ware (Brit. Mus.), two of which may be mentioned as suggesting a relationship to the latest stage of our primitive period of pottery. The one is formed of two upright tubes, united at the base and connected at the top by a handle. The other is in the form of a flat box or *pyxis*, on the sides of which are four horizontal handles alternately with four female heads modelled in relief. These heads are of

a distinctly archaic type, but not so much so as to suggest any material difference of date between them and other works which we have no difficulty in placing about 600 B.C., while on the lid of the box and round the bottom are incised wavy lines which again recall the primitive manner of decoration.

Let us take another case. From an Etruscan tomb at Vulci, known as the Polledrara tomb, or Grotta of Isis, the contents of which are now in the British Museum, we have a large vase of the same brownish-red ware which we see in Nos. 11-12. On it are painted a series of designs from Greek legend, *e.g.*, Theseus and the Minotaur. But these designs have only been partially fired on the vase, and for the rest are painted on in colour which was left to last as well as it might. That circumstance taken by itself would be evidence that the art of painting designs with a glaze which could be fired with the vase was as yet unknown. Yet in the same tomb was found another vase, which offered various significant points of comparison with the archaic, not primitive, pottery from the Greek town of Naucratis in the Delta of Egypt. We know that many Greeks settled in the Delta under the Egyptian king Psammetichos I., and we find in the Etruscan tomb in question a porcelain scarab with the name of that king, who died 611 B.C. That tomb cannot be older than Psammetichos I., though no doubt it may go well back into his long reign. We have thus evidence that the brownish-black ware continued to be produced down to about the end of the 7th cent. B.C., though, of course, no one can tell how long before then it may have been a regular product of Greek potters.

As regards the black ware of Etruria, *bucchero nero*

as it is called, there is every proof, from the shape of the tombs in which it is found, that it also went back to a primitive age. Nos. 5 and 6 (Pl. 1), representing a fairly large class, speak for themselves as the work of a primitive people. No. 8 may serve as an example of a slightly more advanced ware, of which there are many specimens much more elaborately enriched with incised decoration. The Etruscans have left no satisfactory guidance as to dates. Tradition says that certain Corinthian potters migrated to Etruria early in the 7th cent. B.C. We can imagine that the Etruscans had not then advanced beyond the black-ware stage, and that one reason for receiving the immigrants so cordially may have been an anticipation of profit from their new skill. In this instance again it will be safe to assume that the Etruscan bucchero ware was produced down to the 7th cent. B.C.

But observe that, however many instances may attest the production of primitive pottery as we see it on Pl. I., down to the 7th cent. B.C., or even later, that circumstance by no means proves a negative as to its existence centuries before then in Greece. Our duty at present is only to establish the latest possible date. We proceed now to a more advanced stage of primitiveness, as represented on Pls. II. and III. The following list will indicate the distribution of the pottery in Pl. II.

Pl. II., No. 1.	<i>Ialysos.</i>	Height, 1 ft. 5½ in.
”	” 2.	” 10½ in.
”	” 3.	” 6¼ in.
”	” 4.	” 1 ft. 9 in.
”	” 5.	” 5½ in.
”	” 6.	” 10½ in.

PLATE II.



1.



2.



3.



4.



5.



6.



7.



8.



9.



10.



11.



12.



13.



14.



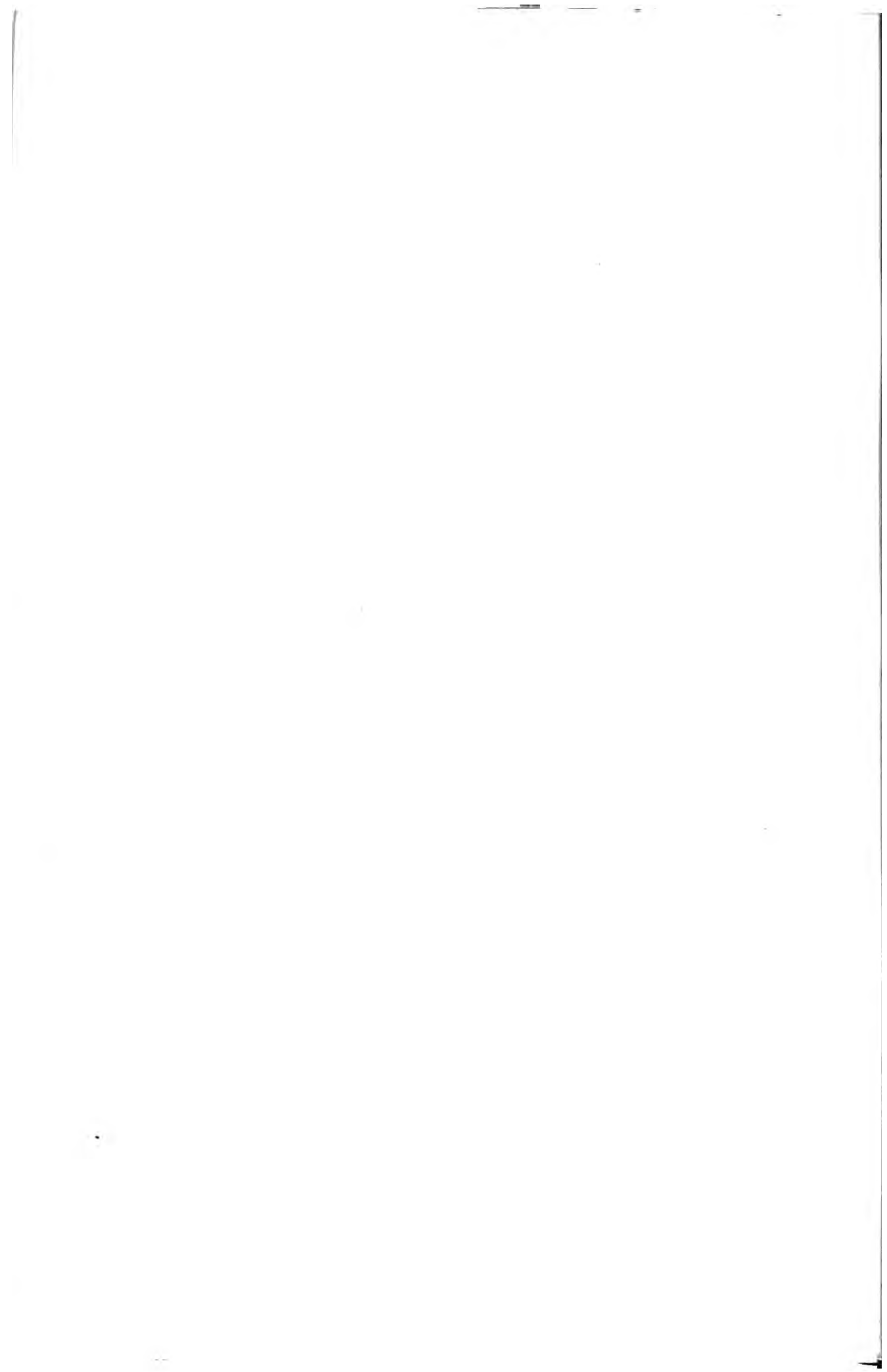
15.



16.

VASES OF THE MYCENÆ TYPE.
In Brit. Mus. except Nos. 9, 10, 11, 13, 15, 16.

[To face p. 16.]



- Pl. II., No. 7. *Ialysos*. Height, $10\frac{1}{2}$ in.
 „ „ 8. *Bin Tepè, Sardes*. Height, $5\frac{1}{2}$ in.
 „ „ 9. *Mycenæ*. Height, 1 ft. 2 in. (Myk. Thongefässe, Pl. 11, No. 56).
 „ „ 10. *Mycenæ*. Height, 11 in. (Myk. Vasen, Pl. 38, No. 393).
 „ „ 11. *Santorin*. Height, 6 in. (Dumont, Céram., Pl. 2, No. 14).
 „ „ 12. *Crete*. Height, $4\frac{1}{2}$ in.
 „ „ 13. *Santorin*. Height, $8\frac{3}{4}$ in. (Dumont, Céram., Pl. 1, No. 3).
 „ „ 14. *Carpathos*. Height, $5\frac{1}{2}$ in.
 „ „ 15. *Santorin* (Dumont, Céram., Pl. 21 No. 32).
 „ „ 16. *Mycenæ*. Height, $12\frac{1}{4}$ in. (Myk. Thongefässe, Pl. 9, No. 44).

Here we recognise an enormous step in advance from a technical, as well as an artistic point of view. Except in the ruder specimens the vase is now covered with a creamy slip. On this slip the patterns are painted. The colour of the design is black, but the effect varies, according as the brush was well or slightly charged, from black to a shade of red. The whole vase is finally covered with a transparent glaze, which gives it a warm tone. That was a brilliant invention, and when we here come upon it for the first time, we are bound to stop and consider it. An obvious suggestion is that the first application of a glaze and of colour that could stand firing had been learnt from the early workers in glass and porcelain.

The high antiquity of work in glass and porcelain in Egypt is beyond dispute. In the British Museum is a porcelain vase bearing the name of Thothmes III. It is argued also that the Phœnicians were early distinguished in the production

of glass. Nor is it possible to deny the very obvious imitation of glass bottles which we see in certain earthenware vases from Melos (Brit. Mus.) which represent a stand with a number of bottles in it, much as in a modern cruet-stand. The shape and the patterns are identical with the most constant shape and patterns among the alabasti or bottles of variegated glass, the patterns being simply a set of zigzags, or wavy lines placed horizontally on the vase. On the glass alabasti these patterns have been produced



Vase of variegated glass. From Ialysos. Brit. Mus.

by first twining a coloured thread of glass round the body of the vase when in a fused state and then with a hook pulling these threads downwards at regular intervals. By that very simple mechanical process a result of admirable beauty is very frequently attained, especially when in pulling down the threads a pressure was employed which produced a ribbed appearance on the vase. Across these ribs the variously coloured threads of glass sweep with the delicacy and beauty of natural forms, far beyond the reach of even a very advanced artistic skill.

A comparison of the glass vase (Fig. 6) with the earthenware vase in Pl. II. No. 8, will farther illustrate the point. It is interesting also to note the different localities where these two vases were found. The glass vase was obtained from a tomb at Ialysos, in Rhodes, and is therefore of the Mycenæ period; the earthenware vase is from one of the ancient Lydian tumuli of Bin Tepè, near Sardes, where it was found in 1882 with other vases of a similar fabric. These

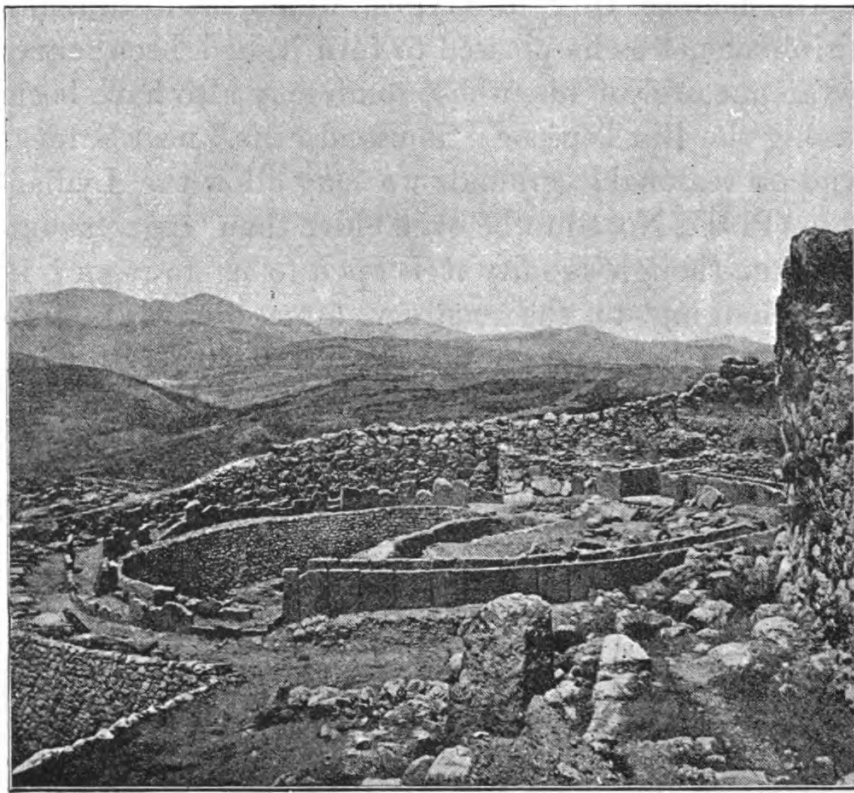
tumuli near Sardes certainly belong to the time of the old Lydian kings, and the vases in question may fairly be considered as going back to the times of Alyattes, whose tumulus Herodotus (I. 93) describes, or of Gyges, or even an earlier date. The tombs of Alyattes and Gyges were famous landmarks in the district at the time of the poet Hipponax.

The famous ring of Gyges, which made him invisible or not as he pleased to turn it, had been found by an ancestor of his, whose tomb may also have been among the Bin Tepè, or "thousand hills," near Sardes. And on reasonable grounds we may allow the Lydian vase (Pl. II. No. 8) to be even older than Gyges, about 700 B.C., though equally it is open to us to regard it as belonging to the century after him. In this connection we may notice a series of vases with precisely the same manner of glass-like decoration found in primitive tombs in the Nilgiri hills of Southern India, the patterns being painted just as on Lydian vases, and the absence of handles being equally conspicuous. In the ruins of Makran, the ancient Gedrosia, a quantity of pottery has been found which in shape and decoration may be classed as rude congeners of the Ialysos and Cyprus pottery. What their date may have been it is impossible to say—the finding of a late Parthian coin in the ruins is plainly no evidence for the pottery. See Major Mockler in the *Journal of the Asiatic Society*, Jan. 1877.

Few things in archæology are more striking than the resemblance between this Lydian and Indian pottery. The Indian specimens bear with them no direct evidence as to date. It is clear that they have nothing in common with those other Indian remains

in which the influence of Greek art, after the time of Alexander the Great, is obvious enough. Whether in regard to this pottery it was Greece that influenced India, or India Greece, the result must have been attained centuries before the time of Alexander.

Fig. 7.



View of tombs at Mycenæ.

Without, however, concluding that the Lydian and the Indian pottery were absolutely contemporaneous, it may be sufficient to regard them as the products of a particular stage of civilization which may have ripened in the one country independently of the other, and at quite different dates, though always, as

we believe, from the same germ of an intentional imitation of primitive designs on glass.

We return now to the vase made of variegated glass (Fig. 6) which was found, as we have said, in a tomb at Ialysos, in the island of Rhodes, along with a quantity of pottery which has been the occasion of much study and investigation (see Pl. II. Nos. 1-7). This pottery had been in the British Museum for several years, and had attracted little or no attention till the discoveries of Dr. Schliemann brought to light the fact that the pottery abounding in the tombs of Mycenæ was identical in all respects with the pottery abounding in the tombs at Ialysos. The same result was obtained from tombs at Spata and Menidi in Attica, at Nauplia and elsewhere. Since then it has been proved that vases of the same kind have been found in Crete, in Caria, Calymna, Cyprus, Egypt, and elsewhere. So that we have evidently before

us in Pl. II. a fashion of pottery that was widely spread in antiquity. It was accompanied by one or two vases such as Fig. 6, and many ornaments of blue glass made from moulds (Figs. 8, 13). Helbig (Homerisch. Epos, 2nd Ed. p. 100 fol.) has argued, with much probability, that this blue glass was no other than the Homeric *κύανος*, employed in the decoration of interior walls of houses along with bronze. A tomb at Thebes of the time of Thothmes III. has pictures of Phœnicians bringing tribute of blue vases. That these vases were made of *κύανος*

Fig. 8.

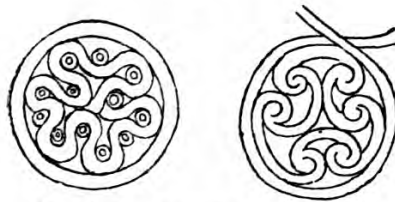


Glass ornaments. From Ialysos. Brit. Mus.

is confirmed by a passage of Theophrastus, which tells of the Phœnicians bringing tribute of *κίανος* to the Egyptians. But here again we encounter the standing difficulty that, allowing these glass objects from Mycenæ and Ialysos to have been made by Phœnicians, we are still not obliged to go farther back for the date of these products than the 7th cent. B.C. They may be much earlier, yet it is a fact that the sphinx on one of the glass ornaments from Ialysos (Brit. Mus.) answers very well in form to the sphinxes on painted vases of the end of the 7th cent. So also the vase

(Fig. 6) does not differ essentially from many others found at Camiros, in tombs which belonged even to the 6th cent. B.C. The production of such things may have gone on unchanged for centuries among the Phœnicians.

Fig. 9.

Gold ornaments. *Mycenæ*.

It has been customary to assign the class of pottery on Pl. II. to what is called—using the word in its strict sense of a period of a thousand years—the second millennium B.C.; according to some the 14th cent. B.C., is the latest possible date. Others are content with the limit of the Dorian conquest, about 1100 B.C. It is confessed that the civilization apparent in these vases, and the other antiquities found with them, such as engraved gems, sculpture in stone and ivory, the glass ornaments already noticed, and much else, was clearly far in advance of the state of things in Homer's time. Homer knew nothing, for example, of the way to build massive walls or vaulted tombs, he had apparently never heard of an engraved gem or

of sculpture in marble, and, though he was acquainted with the movement of the potter's wheel, it is not to be gathered from that fact that painted vases existed in his time and to his knowledge. If then the pottery of Mycenæ and Ialysos is to be declared older than Homer, some extraordinary event must have occurred between its date and his date to account for the sweeping away of that older civilization. That event is found in the Dorian Conquest.

A theory of Pre-Dorian civilization must rely mainly on the possibility of proving some relation between antiquities of the Mycenæ class with the antiquities of other nations older than Greece. Several comparisons have been made with Egypt.¹ But even if these comparisons had been more effective than they are, the fact would still remain that Egypt was for centuries an unchanging country, and that the Greeks the first time they entered it, whether in the 14th or 7th cent. B.C., would see very much the same things to admire and to imitate. One thing there is, however, which they would not have seen, and that is finely painted pottery. The ancient Egyptians were not skilled in that art. Nor indeed were the Assyrians, fond as they otherwise were of working in clay. Neither the Egyptians nor the Assyrians were a trading people who might be conceived as offering their wares for sale in Greece. So far as they are concerned, any influence which Greece may have

¹ Furtwaengler and Loeschke, 'Myken. Vasen,' rely on comparisons with Egypt. Dümmler and Studniczka, in the 'Mittheilungen aus Athen,' xii., p. 1, also maintain the Pre-Dorian view, but on different grounds. They argue that the Mycenæ vases follow immediately after those of the Cyclades and others on our Pl. I.

derived from them must have been obtained by the Greeks themselves when they began to trade with the East. We must never forget that for a long period previous to 660 B.C. Egypt had been sinking into deeper and deeper degradation. At that date the yoke of the Assyrians was thrown off. But it was to the bravery alone of the Greek mercenaries from Asia Minor that this splendid result was due. No wonder that Psammetichos I. did not conceal his indebtedness to them. From that time onward the Greeks were favoured in the highest degree. We may be sure that they made a good use of their opportunities.



Gold cups. *Mycenæ*.

On the other hand there is the undoubted fact that the Phœnicians had acted as intermediaries between Egypt and Greece. We have the evidence of Homer for his own time, and we have the striking incident with which Herodotus opens his history on the authority of Persian traditions. He tells how a ship with Phœnician traders landed at Argos, how the women of the neighbourhood went to the ship to buy pretty things, and how the Phœnicians made off with some of the women, including the legendary Io, daughter of King Inachos. So far as Homer is concerned, the articles of Phœnician product were of costly metal, or otherwise precious.

Apparently Herodotus also had the same class of things in his mind. In ordinary circumstances and in their general trade, we can imagine the Phœnicians bringing to Greece quantities of pottery of little intrinsic value. Indeed the finding of so much pottery in the graves at Mycenæ, along with objects of gold (Figs. 10-12), bronze, ivory and glass, would show that they did trade in it if the Phœnician theory is accepted.

There is much that points to the Phœnicians as traders with the Greeks in early times. It is a conspicuous fact. The difficulty is, as we have said, in determining the period over which that trade extended. The testimony of Homer can only apply to Post-Dorian times. It cannot serve the theory of a Pre-Dorian civilization which we are now discussing. In the 7th cent. B.C., and perhaps later, there is abundant proof of Phœnician trade in richly decorated metal vases. This evidence is constantly increasing, but always, so far as we have observed, with a tendency towards the 7th cent. B.C., or the end of the 8th cent., at the earliest. The question is not how early were the Phœnicians traders in metal vases, and such like, but how early did their trade with Greece begin?

A more pressing question, however, is this: Does the pottery of Mycenæ and Ialysos bear evidence of Phœnician origin, or of a predominating Phœnician influence? With the facts at present known, we can imagine no answer but in the negative. The designs painted on the vases are wholly unlike the Phœnician designs. It is significant that there are no Phœnician inscriptions on the pottery, and that, indeed, vases of the Mycenæ type are singularly rare in Cyprus, where one would have expected them to abound. We must

therefore examine these vases more closely in regard to such technical matters as shape and decoration, to see what points of relationship they may reveal with the rest of Greek pottery. Apart from these vases, it may be said that the history of Greek pottery presents a continuous stream, from the primitive incised zig-

Fig. 13.



Rosettes of
opaque glass
(kuanos).
Ialysos.
Brit. Mus.

zags on Pl. I., to the painted mæanders and other geometric patterns on Pl. III., and Fig. 21, and thence onward to a style of decoration in which animals and human beings occupy the chief place, the intervening blank on the vase being broken up first by bits of the older geometric patterns, and secondly by rosettes. We have first to determine how far any of the elements of decoration characteristic of these successive styles, occur on the Mycenæ and Ialysos pottery.

We have rosettes on Pl. II. Nos. 10, 12, 14, and on some few other examples. We have spirals and wave patterns on Pl. II. Nos. 2, 5, 9, concentric circles on No. 7, zigzags on No. 1. The vase Pl. II. No. 7 is a type which survived in Cyprus to comparatively recent times.

We have thus a certain degree of relationship between these vases on Pl. II. and others which have followed the regular order of development. As regards the rosette pattern which abounds in the early Rhodian and Corinthian pottery, and continued in use down to the 6th cent. B.C., it occurs rarely on the Ialysos and Mycenæ vases. On the other hand a considerable number of actual rosettes made of a blue glass paste and impressed from moulds, were

found along with the vases at Ialysos and Mycenæ (Fig. 13). These glass rosettes are pierced so as to have been stitched on to dresses, probably to form borders, much as we see so frequently in the costumes on Assyrian sculpture of the 7th cent. B.C., and still more so on Persian sculpture. It will appear later on that the vase painters of the early part of the 6th and end of the 7th cent. B.C. drew their designs largely from Oriental embroideries. In the meantime our

Fig. 14.



Kylix : cuttle-fish. *Ialysos*.
Brit. Mus.
Ht. 8 in.

Fig. 15.



Vase with aquatic design. *Calymna*.
Brit. Mus.
Dia. 11 in.

argument merely suggests that the rarity of the rosette on the Ialysos vases, together with its frequency in glass, may indicate the beginning of that period of vase decoration in which the rosette was all-prevalent. The spiral ornaments are in keeping with vases of the geometric style which again lasted down to the 7th cent. B.C., however early it may have begun.

If now we consider what it is that renders the Ialysos type of vases so abnormal, we shall find it to consist in the extraordinary freedom with which the

designs are drawn (see Pl. II. Nos. 4, 11, 12), in the frequent choice of marine creatures such as the cuttle-fish (Fig. 14), the nautilus, the shell *murex*, (Pl. II. No. 3), and more rarely the dolphin (Pl. II. No. 12); add to this the singularity of shape. The cuttle-fish and murex are drawn under observation of nature—that may be allowed, but if the forms of them be examined, it will be seen how easily they may be produced by a continuous line, whence it may be inferred that the original inspiration of these forms was not observation of nature, but the observation of an

Fig. 16.



Vase with spiral patterns. *Calymna*.
Brit. Mus.
Dia. 10 $\frac{3}{4}$ in.

Fig. 17.



Pseudamphora.
Ialysos. Brit. Mus.
Ht. 5 $\frac{1}{2}$ in.

Fig. 18.



Pseudamphora.
Ialysos. Brit. Mus.
Ht. 10 $\frac{1}{4}$ in.

analogy which presented itself between certain purely decorative patterns and certain natural objects. Strangely enough the skill with which aquatic animals and plants are rendered entirely fails the painter when he tries to represent a quadruped. And this is all the more remarkable when we see the admirable talent with which a contemporary gem-engraver could engrave a bull as in Fig. 39. We are tempted to regard the peculiar shapes of this pottery and the limitation of the designs to aquatic subjects as signs of a local fabric with these special tastes rather than as indications of a special period. To illustrate the

question of shape, we may take Figs. 17–18. The shape may be described as a small amphora with a spout, but the mouth of the amphora has been closed hermetically by the potter. It is thus a pseudamphora, if we may coin that word. On Pl. II. No. 4 and not a few others of these vases it will be noticed that the handles are comparatively small, and for this reason the vases may be said to approach the primitive stage when handles were only rudimentary, rather than the stage of regular geometric decoration when the vases with their large useful handles (Fig. 21), have already assumed the shapes that were to be permanently characteristic of Greek pottery.

Fig. 14 is a kylix, and would not differ much from the ordinary kylix of later times but for its tall foot. The poet Simonides (Bergk, p. 509), speaks of an Argive kylix, calling it *φοξίχειλος*,¹ which is explained as meaning “tapering,” and as it is impossible for a kylix to taper upwards, we must take the expression to apply to a vase like this, which tapers downwards. We may therefore describe this shape of kylix as “Argive,” especially when we remember that vases of this class, though found in other places, have yet been discovered principally in the district of Argos itself, as at Mycenæ, and in the Argive colony of Ialysos in Rhodes. But before extending the name of “Argive” to this whole class of pottery we have to consider that the distribution of it is daily being proved to have

¹ *αὔτη δὲ φοξίχειλος Ἀργεῖη κύλιξ*, explained by the Scholiast, *Iliad*, ii. 219, as employed to describe the head of Thersites. Herodotus, iv. 152, speaking of a bronze vase which the Samians set up in their temple of Hera about 630 B.C., says that it was in the shape of an Argolic crater, which from his description seems to have been a lebes, a shape of vase for which Argos was also famed. See Athenæus, i. 27 *d*.

been more and more wide in the ancient Greek world, and that the distant places at which this pottery is being found are very suggestive of the early age of colonization. We might call this ware "Colonial" in a sense.¹

Fig. 19.



Ivory statuette. From
Ialysos. Brit. Mus.
Ht. $2\frac{1}{4}$ in.

Before leaving the vases of this class, it is important to notice the very remarkable manner in which the painters have cast aside some of the most constant traditions in early pottery. They no longer recognise the duty of covering the whole vase, or at least the upper part of it, with a close network of pattern. They have none of the ancient horror of vacant spaces. More than that, they go so far as to constitute a front and a back to their vases. Their designs aim

at effect. They are in no way trammelled by the shape of the vase. Surely that is a very abnormal circumstance.

Among the articles found with this "Colonial"

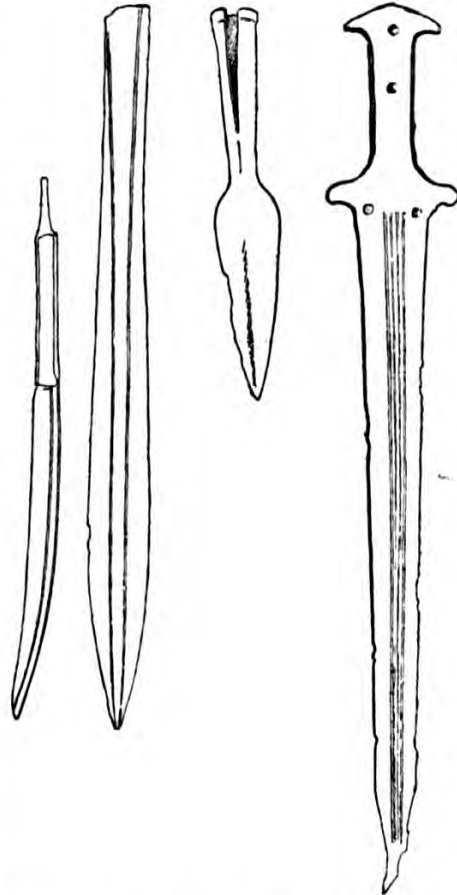
¹ Furtwaengler and Loeschke, 'Myken. Vasen,' p. ix, who argue for a Pre-Dorian date, believe that these vases were as a class all produced in the neighbourhood of Mycenæ, somewhere on the coast of Argolis. Mr. Flinders Petrie calls this pottery Ægean; see his very interesting article, with illustrations, in the *Hellenic Journal*, XI. p. 271, Pl. 14. It will be seen that the fragment which he gives under Fig. 8, Pl. 14, has a border of discs surrounded by white dots—a pattern common in the black figure vases, 6th cent. B.C.

pottery, apart from the objects in glass already cited, we give here several bronze swords as to which it is not possible to ascertain any exact date, a small ivory statuette (Fig. 19),

resembling in style the marble statues from Branchidæ which from their inscriptions are dated somewhere after 600 B.C., and a series of vases and ornaments in gold and other materials (Figs. 10-12) from Mycenæ, in which are combined the freedom of design already observed among these antiquities and a certain adherence to primitive forms of ornament. We omit for the moment the engraved gems which generally accompany these antiquities, because they will presently be considered by themselves.

It will thus be seen that we have here to deal with a state of civilization in which the art was of an industrial character and more liable to variation of quality, than when it is passing through a regular course of development, as on the vases with geometric patterns and their immediate descendants.

Fig. 20.



Bronze knife, two spear-heads and sword. From *Ialysos*. Brit. Mus.

We pass now to the pottery with mæanders and other geometric patterns, as illustrated on Pl. III. and in Figs. 21-24 in the text.

- Pl. III., No. 1. *Corfu*. Height, $11\frac{3}{4}$ in. (Brit. Mus.)
 „ „ 2. *Athens*. „ $11\frac{3}{4}$ in. Now in Athens
 „ „ 3. „ „ 3 ft. 10 in. „ „
 „ „ 4. *Camiros*. „ $12\frac{1}{2}$ in. (Brit. Mus.)
 „ „ 5. *Thebes in Bœotia*. Height, $8\frac{1}{2}$ in. (Brit. Mus.)
 „ „ 6. „ „ Diameter, 1 ft. (Brit. Mus.)
 „ „ 7. *Caere in Etruria*. Height, 1 ft. 2 in. Now in Etruscan Museum on the Capitol, Rome. See ‘*Mon. dell’ Inst.*,’ ix., Pl. 4; ‘*Annali*,’ 1869, p. 157; Wilamowitz-Moellendorf in ‘*Hermes*,’ xxii., p. 118. Since then Professor Ramsay, in the *Hellenic Journal* (X. p. 187), adopts the reading *Aristonofos* for the artist’s name. We use the letter “f” here for the Greek digamma.

What strikes us most in those vases is the prevalence of the mæander, or key pattern, which as yet we have not encountered on any piece of pottery (Nos. 1, 2, 3, 4). So far as can be made out, the mæander is a purely Greek invention. By whatever process it may have been evolved, nothing is more significant of Greek taste, even in those early times, than the readiness with which the mæander was seized upon and utilized on all possible occasions. This much may be conjectured, that it was a pattern evolved in the technical process of weaving or embroidery. The threads may be seen on such vases as Fig. 21.

PLATE III.



1-6, VASES OF THE GEOMETRIC OR DIPYLON TYPE. 7, VASE SIGNED BY ARISTONOFOS.

[To face p. 32.]

ARISTONOFOS

But most of all, the mæander possesses the quality of being effective in whatever position it may be placed. It is, so to speak, reversible, and is seen to equal advantage, whether it is placed horizontally, vertically, or in any of the varying positions which a loose garment assumes. It is in fact misapplied when painted on a vase or employed in architecture, because then it only displays half its qualities. This alone would be an argument as to its having been borrowed from another industry, such as weaving. Exactly the same is true of an equally characteristic Greek pattern which occurs frequently on these geometric vases, the wave pattern (*κύμα*).

Enochoè, geometric patterns. Athens.
Brit. Mus.
Ht. 1 ft. 3½ in.



Fig. 21.

We have noticed it also on the "Colonial" pottery. The name of "Dipylon" is frequently applied to vases of this class, from the circumstance that a large proportion of them have been found at a great depth near the Dipylon gate at Athens.¹ The simplest forms are those of Pl. III. Nos. 1-2 and

¹ See 'Annali dell' Inst.,' 1872, p. 135. In one tomb where the contents are noted, were found along with the vases a silver fibula and objects in bronze and gold. In others of the same class were

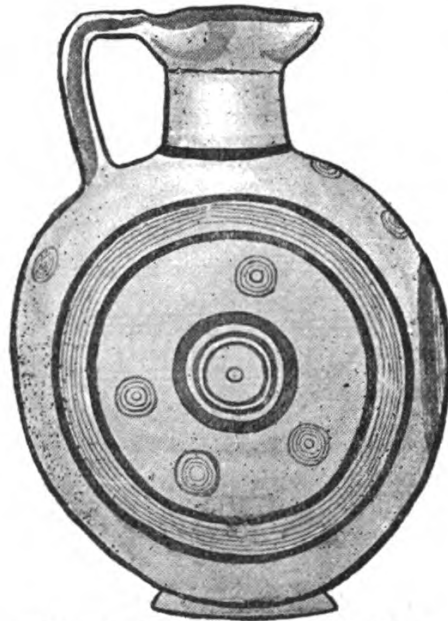
Fig. 21, where almost the whole vase is covered with

Fig. 22.



Vase. *Cyprus*. Brit. Mus.
Ht. 5 $\frac{3}{4}$ in.

Fig. 23.



Ænochoè. *Cyprus*. Brit. Mus.
Ht. 1 ft. 1 $\frac{1}{2}$ in.

geometric decoration. The traditions in which the painter had been brought up, did not allow him to leave blank spaces. He has none of the freedom of the "Colonial" potter; he does not venture like him to constitute a front and back to his vase, and to place his design on the vase, so that it may command the best attention. He is, in short, a slave to the very fine and practised skill which he possesses.

We see an advance on the large vase, Pl. III. No. 3, now in Athens, where the painter attempts, as not unfrequently happened on these vases,

to show us a funeral scene; in the upper band a hearse with mourners, in the lower a procession of chariots.

bronze spear-heads, and thin bands of gold embossed with figures of deer, &c. (*ibid.* p. 154). The large vase on our Pl. III., No. 3, is described, 'Annali,' p. 142, and engraved in the 'Mon. dell Inst.,' ix. Pls. 39-40, fig. 1.

These large vases were placed on tombs as memorials,¹ and no doubt this particular vase had been made expressly for a funeral ceremony. In Athens there were painters of vases for the dead in the time of Aristophanes. From the oldest date the *kerameikos*, or potters' quarter, had been closely allied with the burying-place of Athens. It was there that the potters found much of their trade. Still the faculty of choosing for such a vase as this an actual scene which could

Fig. 24.



Lebes. *Camiros*. Brit. Mus.
Ht. 9 in.

be witnessed any day, implies a vigour of thought from which subsequently much was to be expected. At present the realization is highly imperfect. Very possibly the impetus came from Egypt, where the *cultus* of the dead had been from time immemorial a powerful element in the lives of the people. Much has been written of the nude female mourners who are seen at funerals on some of these vases. It has been argued with reason that the idea of nude female figures in art had its origin in Assyria, and had thence found

¹ 'Deltion,' 1891, p. 33.

its way to Greece through Asia Minor, Egypt, and Cyprus, perhaps about the middle of the 7th cent. B.C.¹ Later on we propose to speak of the representation of war-ships which occur on those vases.

It may be noted that there is in Athens one vase of this style, bearing an incised inscription which may be dated about 600 B.C. We must, therefore, allow that the style lasted down to that date, however early it

Fig. 25.



œnochoë.
Phaleron, Athens.
Brit. Mus.
Ht. 6½ in.

may have begun. We have no means of dating its commencement. It has some points of contact, as we have shown, with the "Colonial" pottery, and in Pl. III. No. 4, we see that it has taken in hand the representation of such legendary creatures as the Centaur, which here, as in early Greek art generally, has human instead of equine forelegs. Behind the Centaur is one of these gryphons familiar on vases of a succeeding period.

It will be noticed that the spaces around these creatures are filled in with geometric patterns, and this brings us to the consideration of the next development of the geometric style, in which animal forms became predominant (see Figs. 25, 26). To this style the name of "Phaleron" is often applied, from the fact that a number of these vases were found on the way from Athens to Phaleron. Fig. 26 is perhaps the best known of these vases. Apart from the combination of animal forms with patterns which it presents, the patterns being subsidiary and a survival only of the older practice of decoration, this vase deserves

¹ E. Kroker, 'Jahrbuch des Inst. Arch.,' 1886, p. 102.

special consideration from the comparison which it suggests with the group of two lions sculptured above the gateway of Mycenæ. The idea is in both the same, and the natural inference is that the Mycenæ sculpture belongs to the same date, or nearly so, as this Athenian vase. The Mycenæ sculpture, it is agreed, is contemporary with the whole class of Argive or "Colonial" antiquities which we have just been considering.

Fig. 26.



Lebes (Burgon Coll.). Athens. Brit. Mus.
Ht. 11 $\frac{3}{4}$ in.

In Pl. III. Nos. 5 and 6 we have a somewhat different development of the geometric style. These vases were found at Thebes in Bœotia, and are not free from a Bœotian rudeness of execution. Noticeably the animal forms are not so conspicuous. The painter is more at home with his patterns. On No. 5 these patterns are of a primitive type, but the animal happens to be one which is conspicuous, as we shall

see, in a somewhat later stage of vase decoration. On No. 6 the patterns are more elaborate. Among them is to be noted the occurrence of a pattern consisting of a black disc encircled with purple dots, which again is a characteristic of a later stage. In both these instances we have perhaps a beginning of the decorative forms in question.

There are now a considerable number of vases of this "Phaleron" class. They have been investigated carefully and illustrated by J. Böhlau,¹ who shows that they represent a period of art following immediately after the Dipylon style. He has examined minutely the system of decorative patterns with which the blank spaces around the animals or men are filled in. He concludes for a date towards the end of the 7th cent. B.C., and this conclusion is the more interesting when we remember the resemblance between some of the decorative patterns in these vases and the pottery of the Mycenæ type.² A fragment of the Mycenæ class of pottery with figure of a murex has been found on the site of the temple of Athenè Cranaia in Phocis with no signs of great antiquity.

It should be stated that with the vases from Thebes were found among other things bronze fibulæ, bearing incised designs of a similarly early character, an iron spear-head, and a porcelain scarab with an Egyptian design. This scarab must have been imported from Egypt, but at what date there is no way of determining from the evidence of itself. Possibly it was

¹ 'Jahrbuch des Arch. Inst.,' 1887, p. 33.

² In 1882 I had argued, from an examination of the patterns on this pottery, that it could not well be older than 600 B.C. (*Revue Archéol.*, xliv., p. 342). For other examples of this Bœotian ware, see E. Pottier, in the '*Gaz. Archéol.*,' 1888, pl. 36.

imported in the course of Greek trade with Egypt in the 7th cent. B.C.

We have placed on Pl. III. No. 7, a vase found at Cervetri (Caere), in Etruria, and now in the Etruscan Museum on the Capitol in Rome. We have so placed it because of the conviction that it may equally stand at the end of the geometric style or the beginning of the next period. In particular the ships on it suggest a comparison with the ships on geometric vases, while the armour of the fighting-men recalls the armour on a vase-fragment from Mycenæ. Indeed the shield of the last man on the right is identical with the shields frequently worn by warriors, on the engraved gems found with the Mycenæ class of pottery. Again, there is between the two ships a rosette, on the importance of which we have already spoken. On the reverse is represented the Greek legend of Odysseus and his companions putting out the eye of Polyphemos. But perhaps the most interesting feature of the vase is the signature of the artist which it bears. His name has been read Aristonophos, but as that form of name is hardly possible, Aristonothos and lastly Aristonofos have been suggested. So far as is known, this is the first instance of a Greek potter signing his work. The letters may be dated somewhat after 600 B.C.¹

It has been pointed out that Homer knows nothing of battles at sea nor of ships equipped for that purpose. It has been further shown that whatever may have been the seafaring skill of the early Phœnicians, yet

¹ This vase is placed in the 7th cent. B.C. by Furtwaengler 'Bronzefunde aus Olympia,' p. 45, his argument being that in style it follows on immediately after the style of the Mycenæ ware, and belongs to a tendency of vase painting which combined the geometric and the Oriental styles.



the Greeks had obviously not profited by it to any great extent, because we learn from Thucydides (i. 13, 2) that the first Greek triremes were built in 704 B.C. by the Corinthian shipbuilder Ameinocles, and that this was regarded as a great invention. This Ameinocles, he says, built also four ships for the Samians, so that however much the Greeks of the mainland may have learnt in matters of art from their kinsmen settled near Samos and elsewhere in Asia Minor, yet in practical inventiveness they were clearly not behind them. The first naval battle that Thucydides was aware of occurred between the Corinthians and Corcyræans in 664 B.C. The conclusion is that the ships on the early Dipylon vases indicate a state of shipbuilding such as existed in Greece about the middle of the 7th cent. B.C.¹

Having thus noticed the principal characteristics of primitive Greek pottery, we proceed to examine the oldest engraved gems in Greece. The gems to which we refer have been found in some numbers along with pottery at Mycenæ and Ialysos. In some cases the designs represent the same subjects as on the pottery, *e.g.*, the cuttle-fish; but in general the gems aim at higher forms of animal life, as lions, bulls, and horses, occasionally introducing the human figure in a rude, elongated form. In gem-engraving, as in sculpture, no lines tell with effect but those which are clear, strong, and well-defined; hence the love of animal and human forms, which have been moulded on the principle of resistance, not as in plant-life, where the principle of yielding plays so important

¹ Illustrations of these ships are given also in the 'Monuments des Études Greques,' 1886, Pl. 4, and pp. 44, 47, 51, 57.

a part. On the pottery associated with these gems there is, as we have seen on Pl. II., and may see in many other examples, a fondness of plant-life, mostly that of aquatic plants. Therefore, at this particular stage of civilization, we have two separate tendencies to observe. As to which of these tendencies prevailed ultimately, there is no manner of doubt. It was the sculpturesque tendency, with its animal and human forms that prevailed, and from that point of view it ought to be possible, going back systematically from

Fig. 27.

Sard. Brit. Mus. Cat.,
No. 55.

Fig. 28.

Green porphyry. *Crete.*
Brit. Mus. Cat., No. 76.

ascertained dates, to arrive at some suggestion as to the date of these oldest gems.

The shape is significant; it has nothing in common with the gems of Assyria, which were cut into cylinders, nor with those of Egypt, which took the form of scarabs, or beetles. The oldest Greek gems have the shape either of a nearly circular bean, whence they are called "lenticular," or of a gland or pebble, such as was used in slinging, to which the name of "glandular" is applied. If we look for a motive which may have induced the Greeks to adopt these shapes rather than the cylinders or scarabs of Assyria and Egypt, we may remember

that among the Greeks pebbles (*ψῆφοι*) were employed to record votes at public trials, while beans

Fig. 29.



Hæmatite.
Brit. Mus. Cat.,
No. 8.

(*κύαμοι*) were used for voting in the election of magistrates.¹ In early times pebbles were of course used for slinging. The poet Archilochus (Bergk, p. 467), about 700 B.C., refers to the sling as a weapon of his time, though not necessarily a weapon used by the Greeks. He may refer to the barbarous people of Asia Minor or to the Scythians. The Celts, says Dio Chrysostom (Orat. lxxix.), had a river which brought down bits of amber (*electrum*) like the pebbles on Greek shores. Boys used to play with them and throw them away till the value of the amber

came to be known.

As regards beans, Pythagoras the philosopher, who was a son of a gem-engraver, objected to them because among other reasons they were symbols of oligarchy. An important consideration also in a seal was the substance on which it was to be impressed. A small piece of moist clay was the most natural and most

Fig. 30.



Sard. Crete. Brit. Mus. Cat., No. 79.

¹ For the use of beans in voting for magistrates, see Herodotus, vi. 109; Plutarch, 'Pericl.,' 27, and Pollux, 'Onomast.,' viii. 18, 19. For Pythagoras, see Diog. Laert., viii. 34.

accessible substance. Such a piece of clay, when flattened down to take the seal, spreads out into a nearly circular form, and since a seal should cover as much as possible of the surface presented to it for the impression, the best thing to do is to make the seal also nearly circular. This practical view of the matter has been taken by the engravers of a series of cones which come from Assyria, and are assigned to the 7th and 6th cent. B.C. The engraving is not of a purely Assyrian character, but exhibits a strong

Fig. 31.



Agate : man spearing deer. Brit. Mus. Cat., No. 73.

Fig. 32.



Hæmatite : bull and human figure. *Crete*. Brit. Mus. Cat., No. 75.

Fig. 33.



Green porphyry. Brit. Mus. Cat., No. 71.

western influence, which appears to have come from the coast of Asia Minor.

Greek gems of the oldest class (Figs. 27-40), being merely seals, did not usually aim at beauty. It was enough if they expressed, by a device or symbol, the identity of the owner, whenever that identity had to be established for the many purposes of trade and private life, where seals were employed previous to the general introduction of writing about the middle of the 7th cent. B.C. The designs, consisting chiefly of animals, as we have said, are frequently contorted and combined in a manner very unlike nature, but yet suitable for a time when new seals with new

variations and combinations of the old devices were in demand, and when it was necessary that the design should as far as possible cover the whole surface of the seal. Fanciful figures of winged horses, chimæras, and such like, appear to have owed a share at least of their origin to these combinations. Fig. 33 is an example of what seems to be a chimæra—that is a lion with a goat's head rising from its back, while in fact it may only be a heraldic combination of lion and goat. In the same way the numerous instances of a

Fig. 34.



Sard. Crete. Brit. Mus. Cat., No. 77.

Fig. 35.



Prometheus bound. Crete.

Fig. 36.



Steatite. Brit. Mus. Cat., No. 82.

winged horse (Pegasus?) on these gems may represent merely a combination of horse and bird for heraldic purposes, and not at all a creation of poetic fancy. Poets may ride the winged horse Pegasus, but we need not say that the poets created him.¹ The winged horse in the gems is in no way associated with Bellerophon, as in subsequent art. Indeed, instances of legendary persons on these gems are rare. Fig. 36, Heracles wrestling with the sea-god Nereus, is an example. Fig. 35, representing Prometheus bound, is

¹ Dio Chrysostom, Orat. xxxii. 35, says, *οἶα ποιηταὶ καὶ δημιουργοὶ πλάττουσιν Κενταύρους τε καὶ Σφίγγας καὶ Χιμαίρας ἐκ παντοδαπῶν φύσεων εἰς μίαν μόρφην εἰδώλου ξυντιθέντες.*

a subject which occurs on an archaic vase of about the end of the 7th cent. B.C., and presumably this very fine example of that class of gems is little older than this date. Fig. 38, two men seizing a bull by the horns, is interesting, both as presumably an original type of the group of Amphion and Zethos binding Dirke to the bull, and as showing that the figure, apparently above the Tiryns bull (Fig. 115), is really on the off side of it.

From the point of view that a seal may, equally with a coin, be a tender of honesty in a transaction, and

Fig. 37.



Green jasper: Leto (?) and swans.
Brit. Mus. Cat., No. 83.

Fig. 38.



Hæmatite. Brit. Mus.
From Greece.

from the fact that the Æthiopians used engraved stones (*λίθοι ἐγγεγλυμμένοι*) as coins, while the Carthaginians are said to have employed for the same purpose an object enclosed in a small piece of leather and sealed up, it may reasonably be inferred that these oldest Greek gems had immediately preceded the introduction of coinage. A sufficient test of the soundness of this inference is to be found in the fact that the oldest-known coins are very like our lenticular gems, both in shape and design. The origin of Greek coinage is now believed to go back no further than the beginning of the 7th cent. B.C., and to have been the invention of Gyges, the king of Lydia, whose

fame in antiquity was associated with a mysterious finger-ring, which had the property of making him visible or invisible according as he turned it round on its swivel.¹ The invention of coinage has been ascribed also to Pheidon, the tyrant of Argos, but that is now believed to give too early a date. It is difficult, of course, to determine how long engraved seals may have served in Greece as a substitute for money previous to the invention of coinage.

The gems themselves exhibit certain stages of

Fig. 39.



Rock-crystal. *Ialysos*. Brit. Mus. Cat., No. 107.

Fig. 40.



Sard. *Ialysos*. Brit. Mus. Cat., No. 106.

development from rude animal forms, as on Figs. 27 and 33, to the boldly-engraved bull, Fig. 39, on rock-crystal, which was found at Ialysos with the "Colonial" pottery. Yet when we find at Ialysos gems of such varying degrees of skill it becomes doubtful whether different degrees of skill should count as indicating much more than the varying ability of engravers in one generation, and whether we should not rather be

¹ Herodotus, i. 8 fol., does not include the story of the ring in his account of Gyges, as one would expect had it been current in his time, and when he was staying in the region of Lydia. The story is told by Plato 'Republ.,' ii. 3.

inclined to assign a comparatively limited period for the production of these gems. Homer never mentions engraved gems, though there are passages where he would have been certain to have spoken of them had he known of their existence. Pliny quotes the silence of Homer as evidence that gem-engraving had not been in practice in his day.

On a certain number of these gems human figures occur; where they are men they are mostly armed, and the shape of the armour is much the same as on the geometric vases from the Dipylon gate at Athens. The shields are generally of a curious form, not unlike the figure 8—that is to say, they are shields which have pieces hollowed out at the sides to allow the arms of the wearer to move backwards, when the shield is swung on his back, as we sometimes see it on archaic Greek vases. This circumstance reminds us of what Herodotus says (i. 171) of the armour of the ancient Carians: that the Carians had been the inventors of armour, and that they introduced handles to their shields, which previously had been carried by means of leather thongs round the neck and left shoulder.¹ The Carians were a fighting race; we know them as mercenaries in Egypt assisting Psammetichos in the latter half of the 7th cent. B.C. They gave rise to the proverb (*ἐν Καρσί κίνδυνον*), and were a bye-word as mercenaries in the time of the poet Archilochus (Bergk, p. 472) about 700 B.C.² The

¹ Strabo, xiv. 661, says the Carians invented *τὰ ὄχλα, τὰ ἐπίσημα καὶ τοὺς λόφους*, and he then quotes the fragment of Alceus, *λόφον τε σείων Κάρικον* (Bergk, Frag. Poet. Lyr., p. 575).

² Ælian, 'Hist. Animal.,' xii. 30, says that the Carians were the first to serve as mercenaries and to place crests on their helmets. Later on (xiii. 2) he speaks of them as catching certain fish (*σαργοί*) with baited hooks.

island of Lemnos was inhabited by Carians when Miltiades sailed to take possession of it (Cornelius Nepos, 'Miltiades'). Thucydides (i. 8) tells us that when the ancient tombs in Delos were opened at the command of an oracle, and the contents removed from the island, more than half of them were recognised as Carian from the weapons they contained, from the mode of burial being the same as still practised by the Carians in his time. Doubtless these weapons were of the same kind as those which Cimon found in the tomb in Scyros, when he went to remove the bones of Theseus to Athens (Plutarch, 'Cimon'). We can imagine that when the Spartans removed the bones of Orestes from Tegea in the 6th cent. B.C. they also met with bronze weapons; at all events the bones were found in the court of a smith's house.¹

It may be assumed that Herodotus, in speaking of the Carians, meant those of the 7th cent. B.C., and that the improvement of the shield which he mentions was introduced then. If that improvement followed upon the shape of the shield which we see on the gems in question, as we believe it did, then the gems represent a period immediately preceding the 7th cent. B.C.; a result which coincides with what we have previously been led to regard as more or less certain in reference to the pottery found with the gems, though here also we have no exact means of determining the period during which the particular fashion may have prevailed.

The transition from gems of this class to those in the form of a scarab, or rather a scaraboid, was, we think, associated with the name of the sculptor

¹ Herodotus, i. 68.

Theodoros of Samos, who, it is said, made a statue of himself, holding in one hand an engraver's tool, and in the other a gem in form of a scarab, with the design of a quadriga engraved on it. Such seems to be the meaning of the words of Pliny. It was Theodoros also who made the famous seal of Polycrates, the tyrant of Samos (B.C. 560-522). In the story about casting this seal into the sea, at the instance indirectly of Amasis, king of Egypt, we have a suggestion that the seal may have had the Egyptian form of a scarab, while again its being seized by a fish was more likely to have happened if the seal had been in the form of a beetle than otherwise.

Where female figures occur on these early gems the dress is certainly rendered in a manner which more resembles that of very ancient Assyrian cylinders than any other known artistic representation of dress. There we have no points of comparison with the Dipylon vases, or with anything else in Greece. The nearest analogy is to be found in the semi-Greek art of Cyprus; but that would not necessarily lead us to a very remote antiquity, not necessarily much before the 7th cent. B.C.

The peculiar dress of women on these gems is to be seen also on a piece of painted stucco¹ from the wall of a house at Mycenæ. With it were found several other fragments of painting of the "Colonial" style. Among them was one² on which is painted three figures marching in procession. These figures have each the head of an ass, reminding us of Bottom in *Midsummer Night's Dream*; apparently, the skin

¹ *Ephemer. Arch.*, 1887, Pl. 10, fig. 1.

² *Ibid.*, Pl. 10, fig. 2.

of some animal hangs down the back. On the other hand, if we compare the design on a bronze vase found in Cyprus,¹ we shall see on it, sculptured in low relief, two groups of lions. Each group consists of a pair of lions standing upright, face to face, and each lion holding in its fore-paws a vase of the shape known as an oinochoè. Down the back of each lion hangs a skin which has been supposed to be that of a fish, as worn by an Assyrian deity,² or it may be a mane as on the figure of the hippopotamus goddess, Thoueris, in the Gizeh Museum, dating from the 7th cent. B.C. When Herodotus (ii. 71) described the hippopotamus as having a mane like a horse, he was obviously judging from the monuments, not from living specimens. Whatever the precise meaning may have been, we have on the bronze vase from Cyprus precisely the same kind of idea as on the Mycenæ fragment of painting, and there is hardly room for doubt that ideas of this kind had been derived from Assyrian or Egyptian art, whether rightly understood or not. It is true that we have no means of dating this bronze vase from Cyprus, but there is at least no obvious reason why it should be older than 700 B.C.³

A highly interesting feature in the tombs of Mycenæ and Ialysos was the series of bronze weapons, swords, knives and spear-heads (Fig. 20). A bronze knife

¹ Perrot, 'La Phénicie,' fig. 556.

² *Ibid.*, p. 794. For gems with this same type of figure, see Milchhoefer, *Anfänge der Kunst*, pp. 55 and 68.

³ Compare the gem, said to have been found at Orvieto, on which is a figure between two lions, each lion standing on its hind-legs and holding an oinochoè, 'Annali dell' Inst. Arch.,' 1885, Pl. G. No. 8, p. 195.

among them has had an ivory handle, in connection with which we may quote the fragment of the poet Alcæus (Bergk, p. 578), which speaks of a sword with ivory handle brought as a prize from Babylonia. In particular we should notice the short swords of bronze from Mycenæ, inlaid with designs (see Fig. 41), which so obviously remind us of Egypt that they cannot be supposed to have been made except by men either residing in Egypt, or well acquainted with the art of that country. If these workmen were Phœnicians, there appears to be no definite period to which we can assign their intercourse with Egypt; but if they were of a Greek race, we should again be inclined, in seeking to determine their date, to begin with the period of the Carian and Ionian

Fig. 41.



Bronze sword with design incised and gilt. Mycenæ.

mercenaries who served in Egypt in the latter half of the 7th cent. B.C., under King Psammetichos I., by whom they were ultimately established in the Delta. How long before then the Greeks of Ionia had been

in the habit of visiting Egypt, it is of course impossible to say. It is interesting, however, to note that, according to Herodotus (i. 105), the Scythians, after defeating the Medes, and swarming over Asia Minor, made towards Egypt, but were met in Palestine by Psammetichos (died 611 B.C.), bringing presents for them, upon which they agreed to retire. Here Herodotus says that the Scythians had then held Asia Minor for twenty-eight years, a fact which must have operated in putting back the arts there very considerably. Such remains of the residence of the Ionian Greeks in the Delta as have been discovered in recent years go no further back than the 7th cent. B.C. Between them and the class of "Colonial" antiquities, as we have called them, there is much divergence in point of artistic taste, but far less divergence in the matter of technical skill.

Before leaving the Mycenæ dagger (Fig. 41), it should be stated that another bronze dagger, also inlaid, is said to have been found in the tomb of the Egyptian queen of Ahmes (18th dynasty), along with several silver ornaments in the shape of flies, not unlike those of Mycenæ. But with them was a gold chain, and a pair of gold earrings of filigree work, with pendants of pomegranate and lotus which are clearly of Greek workmanship of about 600 B.C. (Mariette, 'Album du Musée de Boulaq,' Pls. 29-31).

In connection with this question of armour, let us take the description of a great house contained in a fragment of the poet Alcæus: ¹ The house glittered with bronze, everything spoke of war, shining helmets with white plumes, bright bronze greaves hung on

¹ Bergk, Poet. Lyr. Gr., p. 573.

hidden pegs; there were a spear-head, cuirasses of linen, shields, Chalcidian swords, many coats of mail and garments. If the poet is here describing a house of his own time, as we may well believe, then the picture is not so very different from what the tombs of Mycenæ and Ialysos reveal that we need assume the latter to have been many centuries older. The contents of a tomb would, as a rule, give a fair notion of the contemporary houses. As regards these tombs, it is to be observed that, though at Mycenæ and Ialysos they were sunk in the earth with the sides built up, yet the tomb at Menidi in Attica, which contained precisely similar objects, was a vaulted structure resembling the so-called tomb of Agamemnon at Mycenæ, the contents of which are unknown, having been carried off long ago. It is clear, therefore, that vaulted tombs were more or less contemporary with the antiquities of the colonizing period. Pausanias (ix. 4, 1) describes the people of Panopeus in Phocis as in his time living in houses like the huts one sees on the hills. The only monument he describes was the tomb of Tityos, which was a large tumulus. It was in that neighbourhood, he says elsewhere (ix. 40, 6), that the sceptre of Pelops had been found, with much gold, doubtless in some old tumulus. The gold was probably in the shape of vessels like those of Mycenæ and Vaphio near Amyclæ. Another ancient writer, Athenæus (xiii. 625), says: "You may see all over the Peloponnesus, but especially in Lacedæmon, great tumuli, which the Greeks call the tombs of the Phrygians who came over with Pelops."

Though there is no absolute parallel to these vaulted tombs in antiquity, there is much that resembles them among the early tombs of Etruria, and near Sardes in

Lydia. As to Lydia, we have in Herodotus (i. 93) a description of the making of the tomb of King Alyattes, who died B.C. 560.

Whether or not the great tumulus among the Bin Tepè, or "thousand tombs," near Sardes, which Mr. Spiegelthal opened in 1854, was actually the tomb of Alyattes, we have in the pottery found in identical tumuli on this spot evidence of a date somewhere in the 7th cent. B.C.¹ The sculptured couches found in these tumuli seem to point to that period. The ornamentation is very simple and pure, partly sculptured, and partly picked out with red and green colour. A fragment of the poet Hipponax,² who was a contemporary of the oldest Greek sculptors in marble, speaks of the tomb of Alyattes, the monument of Gyges, the stelè of Ardys, as if they were all in one place, doubtless the place now known as Bin Tepè. It is of course possible that some of these tumuli may be as old as the time of Gyges, or even older. In Etruria are many examples of tombs in the form of circular mounds, with an outer base of stone-work. The Regolini-Galassi tomb is vaulted, though not in the circular form of the tombs of Agamemnon and at Menidi. All these facts carry us back to the 7th cent. B.C., and not much farther. At the same time there are circumstances connected with them which clearly point to an anterior period, when art and civilization had made considerable progress. If Alyattes, towards his end, made a present of a silver crater on an iron

¹ See Olfers, *Lydisch. Königsgräber bei Sardes*; Pl. 5 gives specimens of the pottery; Pl. 4 a view of the tumulus of Alyattes, as it is called. See also *Revue Archéol.*, 1876 (xxxii.), pp. 73-81, and Pl. 13. Perrot and Chipiez, *Hist. de l'Art*, v. p. 266-278.

² Bergk, *Poet. Lyr. Gr.*, p. 513.

stand to the temple at Delphi, and if this was the work of Glaucos of Chios, who was reputed to be the inventor of the process of soldering iron, we may reasonably allow some considerable period of artistic or industrial development among the Greeks before the time of Alyattes. Still we must remember that with the older civilizations of Egypt and Assyria before them, the first of the Greeks who took to handicraft would make very rapid progress.

The Etruscans, it is known, claimed an origin in Lydia, and, so far at least as tombs are concerned, there is much similarity between the two countries. In Etruria are many tumuli. The oldest painted pottery found in that country is, we believe, represented in the contents of a tomb at Corneto (Mon. dell' Inst., x. Pl. 10), among which are an oinochoè with concentric circles (see our Pl. II., No. 7), a vase with zigzag patterns and rude figures of birds, and a vase in the shape of an animal not unlike Fig. 5, but painted with zigzags, and rudely-drawn birds, while others have mæanders and a general resemblance to the Dipylon style of ornamentation.

Mention has been made of the Regolini-Galassi tomb, the contents of which included an Etruscan inscription. It is believed that the introduction of writing in Etruria took place between 750–644 B.C.,¹ and that the tomb in question must belong to somewhere about 700 B.C. More recently there has been opened at Vetulonia the tomb of a warrior which also contained a vase with an Etruscan inscription. Here, again, a date somewhere close on 700 B.C. has been arrived at, though it is equally possible that the tomb may be half a century later than that. We say this because

¹ Helbig, 'Annali,' 1876.

the contents strikingly resemble those of the Polledrara tomb at Vulci, now in the British Museum, bearing in mind that the latter was the tomb of a woman, while at Vetulonia the tomb was that of a warrior.¹

The Polledrara tomb admits of being approximately dated. Among its contents was a porcelain scarab having the name of King Psammetichos I., who died B.C. 611. Allowing that this scarab may have been made towards the beginning of his long reign, we should then be able to go as far back as about 650 B.C. On the other hand, the scarab may even have been made after the death of Psammetichos I. in 611 B.C. Much else in this tomb bears witness to commerce between Etruria and Egypt; we have ostrich eggs richly incised, and painted in a style half Oriental and half archaic Greek; we have porcelain vases with blundered hieroglyphics, which could only have been made by persons not fully acquainted with hieroglyphics. On one of the ostrich eggs is incised the Greek letter A in a form which coincides with the writing of the Greeks resident at Naucratis, in Egypt, towards the end of the 7th cent. B.C. More than that, one of the painted vases corresponds perfectly in shape and manner of decoration with the pottery found abundantly in late years at Naucratis, except that the colours do not appear to have been fired on to the vase, as at Naucratis.

It may seem strange that to find actual antiquities illustrative of Greek intercourse with Egypt at this period, we should go to Etruria, and not to Greece itself. But it is to be remembered that the Greeks in Egypt in the 7th cent. B.C. were Greeks of Asia

¹ For the tomb at Vetulonia see a short account in the 'American Journal of Archæology,' 1888, p. 177, Pls. 10-11.

Minor, and not of the mainland of Greece. For some reason, the mainland did not participate in those ventures in Egypt till a later time. It had its own system of colonization to look after for one thing; but, whatever may have been the reason, it is just possible that a period covering the 7th cent., and extending, perhaps, into the 8th cent. B.C., was the time in which the pottery and other antiquities of the Mycenæ class were produced for the home market of Greece, and possibly in Greece itself. That period coincides with the rule of the tyrants in Greece; men like Pheidon of Argos, Kypselos of Corinth, and his son Periander. Greek history says little of how they ruled; but if we judge them by a comparison with Polycrates, the tyrant of Samos, then they may be supposed to have maintained their sway by large bodies of men, who were at their bidding for war, or for the execution of public works on a magnificent scale in times of peace. At such a period we can conceive the great walls of Mycenæ and Tiryns, together with the vaulted tombs of Mycenæ, to have been built in rivalry with the tomb of their contemporary Alyattes, which Herodotus compared to the wonders of Egypt and Babylonia. We are told of skilled workmen who emigrated from Corinth during the reign of the Kypselidæ, and established themselves in Etruria. We know that Corinth was celebrated for its ship-building in the period in question.

CHAPTER III.

CONTINUATION OF THE HISTORY OF VASE-PAINTING.

ὡσπερ ἂν εἴ τις . . . Ζεύξίδα καὶ Παρράσιον τὴν αὐτὴν ἔχειν
τέχνην φαίη τοῖς τὰ πινάκια γράφουσιν.

ISOCRATES, *De Permut.* 2.

WE have already noticed briefly the two stages of pottery which followed on immediately after the geometric or Dipylon style, and the Mycenæ or "Colonial" style. How far these two new stages were direct descendants respectively of the two older styles here mentioned, may be open to question in some respects; but there is at least no doubt that the geometric, or Dipylon, left a direct descendant in the class of vases represented by Fig. 26, known as the Burgon *lebes*. How blank the vacant spaces above and below the two lions must have looked to the painter of the vase, and how he missed the old geometric or wave patterns which once left no blank spaces! He has preserved snatches of them wherever he could, probably because it had become a sort of instinct with him to paint them. And so little has this been understood, that one may often hear what is simply a bit of mæander, painted between the legs of a lion, or on some other vacant spot, described as a *suastika*, or ancient Indian symbol.

There is no mistaking the rows of animals on this new class of vases. They are Assyrian, both in their nature

as animals and in the manner in which they are applied on the vases (Figs. 42–44). The lion, familiar enough in Assyria, and constantly occurring in Assyrian art, was not, in historical times at least, a native of Greece. Of the wild boar, bulls, deer, goats, it may be said, no doubt, that they could have been seen alive in Greece. On the other hand, in Assyria the protection of these creatures for the chase was so considerable an occupation, and the representation of royal hunts was so frequent and obligatory in art, that the artistic forms of these animals readily became familiar there, and found their way into the embroidered curtains, and other products of industrial art exported from Babylonia by Phœnician traders, and copied in Cyprus by Greeks, of whom the two, Akesas and Helicon, known to us by name,

may represent no small body. It is to be remembered also that in embroidery the ground mostly consists of a coarse material like canvas, the whole of which has to be concealed by patterns or designs.

We may, then, confidently trace an Assyrian influence in those vases which are decorated with bands of Oriental animals in the manner of those long bands of friezes which have survived from the palaces of the kings of Assyria. The question remains, how-

Fig. 42.



Enochoè without incised lines.
Camiros. Brit. Mus. Ht. 10 $\frac{3}{4}$ in.

ever, as to the channel through which this influence worked its way. The mere importation of Babylonian textile fabrics—such as those mentioned by Euripides (*Ion*, 1158)—could not alone suffice to give the necessary impulse. Had the Greeks been a very imitative people, as they were not, this importation might have led to the exact copying of Babylonian designs. But that is not what we find. We find an adaptation only of these designs, such an adaptation as is easily conceivable among the early Greek colonists

Fig. 43.



Lebes, with dedication by Sostratos to Aphroditè. *Naucratis*.
Brit. Mus.
Dia. 1 ft. 2½ in.

of Rhodes, and still more among the Greek settlers in the Delta of Egypt in the 7th cent., B.C., where in their art industries they were thrown into daily competition with the Phœnicians. But why, it may be asked, did not these early colonists, and in particular the settlers in Egypt, copy Egyptian designs on their vases? The explanation, we think, is to be found in the simple fact that Egyptian art was essentially monumental, and not of an industrial order, while Assyrian art was peculiarly industrial in character. Assyria had no sculpture except what was decorative, it had no statues to speak of, it never got fairly beyond

friezes in bas-relief. The fantastic winged beings so frequent in Assyrian art were such as an imagination, prompted by technical necessities, is ever ready to create. As a matter of fact, the two principal sources of these Græco-Asiatic vases, as they have been appropriately named, are Rhodes and Naucratis in Egypt, and our argument is that this style of decoration was first invented in those places, finding its way afterwards under modifications, to Athens and Corinth.

That, itself, would be a natural view to take of the matter ; but it is confirmed by a difference observable in the habit already referred to, of retaining wherever possible some bit of the older system of geometric patterns, and forcing it upon the vase where vacant spaces occurred in the field of the design. The vase painters of Rhodes certainly knew this older system of geometric patterns, as many specimens of it now in the British Museum testify (*e.g.*, Fig. 24). It is likely that the potters of Naucratis also knew it, though as yet very little evidence has been obtained on the point. Now, if we compare vases from Rhodes produced under this new orientalizing influence, with vases from Athens exhibiting the same tendency, such as the Burgon vase (Fig. 26), together with others of the kind found at Phaleron (Fig. 25), it will be seen that while both styles retain bits of the old geometric patterns, the Athenian vases are more conservative of them, and adhere more tenaciously to the older shapes which gave the best scope for these patterns. It would thus seem that the farther the potter was removed from the actual centre of Oriental influence, as in Athens, the more free was he to choose and adapt from it just what suited his notions and principles.

Equally it would be expected that Greek vase painters, living in districts where they could hardly escape this influence, would soon, after their first protest in favour of the old method, yield themselves more completely to the new.

How rapidly every trace of the old geometric method now disappeared may be seen

Fig. 44.



œnochoë with incised lines. *Camiros*.
Brit. Mus.
Ht. 1 ft. 1½ in.

in a series of œnochoæ from Camiros in Rhodes, which without a closer examination, would pass for being identical in all respects with the œnochoæ from the same quarter on which the geometric patterns were retained in snatches. They (Fig. 44) have the same shape and colours, the same rows of animals, but the spaces around the animals are filled in

with rosettes, and not with geometric patterns. That this is a later stage of vase painting is evident from the clumsy drawing of the animals, from the negligence with which the rosettes are given, and from the fact that incised lines are here introduced for the first time, in any noticeable extent, to mark out details of drawing. The shapes of these vases are undoubtedly

finer than the others, and this appears to be due to a greater skill which had been attained in firing them. This also would be consistent with a later date. Much later it need not have been.

The rosette thus applied was obviously a new element in vase decoration, and fortunately it did not long retain favour. It had been one of the most common forms of ornament in Assyria. Indeed, there was once a long contention that it was exclusively Assyrian. Since then, however, the rosette has been found in Egyptian decoration also, though not at all to an extent that invalidates the claim of Assyria to have invented it, so profuse is the application of it there, and so consistent is its form with all that is known of Assyrian art. Its form is not that of a rose studied from nature—it is a rose as it appears pressed out on paper, and this is the character also of other plants, and even of animals and men as they are represented in the art of Assyria. They all seem to be pressed out as suited best the low flat relief of Assyrian sculpture. This principle of decoration suited equally the embroidery of curtains and costumes, and we have no difficulty in believing that their fabrics, embroidered in this manner with figures of animals on a ground studded with rosettes, found their way readily to places like Rhodes and Naucratis, where, for a time at least, they were copied by the vase painters. It seems always to have been the practice of the vase painter to follow hand in hand with the weaver and embroiderer. In later times the embroiderer, in his turn, followed the vase painter so closely that the design on a piece of actual Greek dress found at Kertch, might well be taken for that of a vase of the 4th cent. B.C.

It is not argued that the only Oriental fabrics that came under the eyes of the Greek potters were studded with rosettes. We can believe that Assyrian fabrics had, in some instances, geometric patterns also. But there is no evidence of this habit of retaining bits of the old geometric designs amid a new fashion, except among the Greeks, and it is only right to point out their conservative spirit thus far, which, as has already been said, was stronger the farther it was removed from the actual centre of orientalizing influence; that is to say, stronger in Athens than in Rhodes or Naucratis.

In rendering the figures of animals on the vases in question, the painter has mostly followed the Assyrian habit of placing them in a row, each represented in profile and as it were pressed out on paper, as we have said. But occasionally he exhibits a discontent with this view of only one side of his lion or other beast. His plan of overcoming the difficulty is to present what appears to be, and what used to be called, a lion with two bodies. That is to say, he draws in first the face and fore-legs of the lion, looking in front; then he draws one side of the body going one way and the other side going the other way. It is a simple contrivance such as children adopt, and sins against nothing but the law of perspective. The effect, however, was ridiculous to those who did not know the principle of drawing that had been followed. To meet these critics the next step was to draw what appears to be two complete lions standing face to face, each strictly in profile, but what really is two side views of one and the same lion, as in the Burgon *lebes* (Fig. 26).

We are yet some way off from the great events

which finally rendered Greece independent of the East—the Persian wars. But obviously the mere fact that Greece was at the moment of these wars able to oppose so powerful a front to her huge enemy is a proof that she had been for some time unceasing in the preparation of her independence. She had, in fact, already created her independence. What remained to be done was to signalize it. And this applies to her art as well as to her national strength. For some time before the Persian wars her vase painting had begun to take its place beside the higher arts of sculpture and painting. Vase painters had become tired of the older methods of handicraft, in which different centres of production and different fabrics had been rivalling each other in variety of design, much as in comparatively modern pottery, where only a few skilful judges can detect the differences which exist between some of the local fabrics. But a new era had already begun to dawn. It will, however, be necessary, still, to cast an occasional glance backward to Oriental influence. The remaining history of vase painting, to which we at once proceed, would not otherwise be clear.

An interesting question is the use of these painted vases in antiquity. Not a few of them undoubtedly were made expressly to hold wine, oil, and liquid perfumes at funeral ceremonies, and to be thereafter placed in or on the tombs, unless where a law forbade this as leading to unnecessary expense. Such a law existed in the island of Keos, and may well have extended to many other parts of Greece. It is difficult, otherwise, to account for the comparative scarcity of vases in the tombs of the very country where they were made in such abundance and whence

they were exported freely to the colonies in the Cyrenaïca, the Crimea, Southern Italy and Etruria, where apparently there was no hindrance to the burying of them along with the dead at whose obsequies they had served. The tombs of Attica, however, have furnished a large number of a special class of vases, which, as we learn from Aristophanes—

τὸν τῶν γραφέων ἄριστον
ὅς τοῖς νεκροῖσι ζωγραφεῖ τὰς ληκύθους.

Eccles. 995.

—one of the very rare references to painted vases in Greek literature—were made expressly for the dead. Apart from this remark of Aristophanes the subjects painted on these Attic lekythi so constantly refer to the dead that there could be no room for doubt as to their destination. We have such subjects, for example, as Sleep and Death carrying off the body of Sarpedon, to bury it, as the passage in the Iliad describes, or a variant of this legend in which Boreas and Zephyros carry off the body of Memnon (Pl. IV.). Again, there are not a few representations of Charon in his boat with its prow touching the reedy banks of the Styx, while he beckons to a girl of great beauty, but of sad expression, to cross the ferry with him; or again we have actual death-bed scenes with the soul in the form of a diminutive winged being flying away as life becomes extinct. These scenes, as we have said, leave no doubt that the vases of this class were made for funeral ceremonies. Not only do they seldom represent any scene that is not immediately connected with these purposes, but it is curious to observe also how strictly the painters confined themselves to the actual moment of death or burial; they did not go further than the edge of the



Athenian Lekythos. Burial of a Warrior. (Brit. Mus.)
Ht. 1 ft. 6 $\frac{1}{4}$ in.

Styx with Charon in his boat. They did not venture to illustrate the further journey where the soul was received by Hades and Persephonè. Nor, on the other hand, did they go back on the life of the deceased further than to indicate, for example, when he was a warrior and had fallen in battle. As a class the white lekythi do not reach back to early times. They were preceded by oblong tablets on which were painted, exactly in the manner of the black-figure vases, scenes relating to death and burial.¹ These painted tablets had in their turn been preceded by the larger vases of geometric decoration and funeral scenes to which we have before referred.

At Corinth, however, a number of archaic tablets have been found, on which the designs do not point to funeral purposes, but to their use as dedications in temples—in the temple of Poseidon in particular, whose name frequently occurs on them. The designs in several instances illustrate stages of the art of vase-making, whence it may be inferred that the tablets had been made for dedication by potters. In one case we see a picture of a ship carrying a quantity of vases, and probably these dedications to Poseidon were made with reference to the safety of cargoes of vases exported from Corinth (Rayet and Collignon, p. xv).

It would seem to have been a not uncommon habit to place in the graves of athletes who had won a prize in the games at Athens the vase which bore witness of his success—a large amphora on which was painted

¹ Rayet and Collignon, 'Histoire de la Céramique Grecque,' p. 143. Benndorf, 'Gr. und. Sicil. Vasenbilder,' Pls. 1-5.

on one side the species of contest in which he had won, and on the other the goddess Athena, and not unfrequently the name of the chief magistrate of Athens for the year, by means of which the exact date of the vase is determinable (Pl. X. is an example). We see then that a vase found in a tomb may have been in fact an object of special pride to the deceased person, and may have been placed beside him in obedience to his wish, or from a desire to gratify him on the part of his relatives. But in connection with these prize vases it is worth remembering that in the older heroic days sung of by Homer a beautiful vase was one of the prizes awarded in the games which accompanied the obsequies of a great person, as, for instance, at the games held at the funeral of Patroclos. These Homeric vases no doubt would be costly works of silver or gold. But we can imagine that in later times, when lavish expenditure at funerals was repressed by law, as Solon repressed it in Athens, the humble form of clay vases with painted designs may have represented to the ordinary mind the ancient habit of funeral games and prize vases. In Athens the *Keramikos* included the potters' quarter, a burying-ground, and a place for funeral games.¹ It would be natural for the potters to establish themselves near to a burying-ground when much of their trade arose from funeral ceremonies. The Greeks of Egypt in Ptolemaic times spoke of the burying-ground at Thebes as the "Pottery."²

¹ Hesychius s.v. 'Επ' Εὐρυγύη ἀγῶν . . . ἐφ' ᾧ ἀγῶνα τίθεσθαι ἐπιτάφιον Ἀθήνησιν ἐν τῷ Κεραμεικῷ.

² Neroutzos Bey, 'L'ancienne Alexandrie,' p. 29, cites from a Greek papyrus: εἰς τὰ κεράμεια τῆς Λιβύης τοῦ περὶ Θήβας ἐν τοῖς Μεμνωνείοις.

We should mention here another class of vases, which, though they were not found in tombs, had this much in common, that they were, or rather ought to have been, found in a temple. We mean the vases discovered at Naucratis in the Delta of Egypt, and

Fig. 45.



Fragment of large vase dedicated by Polemarchos. From *Naucratis*.
Brit. Mus.
Dia. 1 ft. 5 in.

now in the British Museum (Figs. 43 and 45). These vases, and fragments of vases, bear inscriptions which tell that they had been dedicated in the temples of Apollo and Aphrodite at Naucratis, and it will appear quite evident that they were so dedicated after having served in a ceremony of sacrifice, if we consider the inscription on one of them (Fig. 45) and compare it

with the illustration on a vase of the same class (Fig. 46). The inscription reads: "Polemarchos dedicated me along with a prochous and a stand." Now on a vase in the British Museum (Fig. 46) will be seen painted

Fig. 46.



Kylix: black figures on creamy ground. Sacrifice. Brit. Mus.
Dia. 7 in.

a design which represents a sacrifice where the utensils employed are exactly of the kind dedicated by Polemarchos, viz.: a large crater, like that on which his inscription is incised, a small prochous and a stand —while the man sacrificing holds in his hand one of

those bowls which Mr. Petrie found in great numbers at Naucratis, inscribed with the name of Apollo, and obviously without any value except that which they derived from having been used at a religious rite.

What with the needs of sacrifice, then, and of funeral ceremonies, we should be able to account for a considerable industry in the production of vases, quite apart from the question as to how far they may have been used in daily life. We know that clay vases were in daily use, and must have been frequently broken in the days of ostracism, when it required 6000 votes written on ostrakina, *i.e.*, fragments of vases, to doom a man to exile, but we do not know how far they may have been painted with designs. We have at least one instance. The name of Xanthippos, son of Arriphron, is scratched across the face of a fragment of a finely-painted vase found on the Acropolis of Athens.¹ On vases of the kylix shape we find not unfrequently banquet scenes where the guests drink from kylikes, with a reserve of other vases hanging on the wall, or otherwise placed. It is true that these vases are not indicated as having painted designs: that would have been difficult to do. But there is at least one vase in the British Museum, a small Athenian pyxis, representing a toilet scene, where, among other things, is a vase painted with figures. The effect, however, is so insignificant that the Greeks must have hesitated to do much of the same kind. We may fairly conclude that painted vases were largely used in banquets, and in fact the passage of Aristophanes quoted above with reference to a "painter of lekythi for the dead," appears to have been meant only to

¹ 'Jahrbuch,' 1887, p. 161, where this ostrakon is taken to refer to the banishment of Xanthippos.

distinguish the funereal character of his occupation, just as the existing lekythi are distinguished from the more cheerful subjects, which rendered the other vases acceptable in daily life. I am not aware that the Etruscans ever imported any of these funereal lekythi, and that is a proof that the vast number of Greek vases which they did import, as our museums testify, were not imported in the first instance for the usages of burial. They had served first in the household either for ornament or use.

Again we are told gravely in a Greek inscription from Epidaurus, of a boy who had been carrying his master's favourite cup, and had gone to sleep by the roadside, to wake up and find the cup broken in pieces. He was in despair, when a passer-by remarked that only Asclepius, the healing god of Epidaurus, could mend the crock. This the god is recorded to have done, to the delight not only of the boy, but also of his master, who, when he heard of the incident, presented the cup to the temple. We are entitled to conclude from the value attached to the vase, that it had been painted with a design, probably one of great beauty. With this curious record may be compared those occasional instances of vases which are seen to have been broken in ancient times and mended with lead, like the Alcmena crater formerly in Castle Howard, and now in the British Museum.

The first necessity in a vase was its adaptability to hold liquid with the least possible exposure to evaporation compatible with convenience for filling and pouring. The various needs of the day and the variety of liquids—such as water, wine, oil, or milk—gradually required greater facility of pouring out liquid, and this was overcome in various ways. When the quantity to be poured

out was considerable, as in wine or water, the *œnochoè* (Figs. 42, 44, 48) came to be the most useful of all shapes. It is one of the most characteristic and most beautiful of Greek vases. It is in general so balanced that pouring is a matter of great ease, while its trefoil lip admirably guides the stream as it issues from the neck. The *aryballos* and *alabastos* are usually small vases with comparatively large capacity and a narrow mouth. They were doubtless intended for liquid perfumes which it was necessary to pour out in drops—whence one variety of this shape, which has a long slender neck, has often been called a lachrymatory, or tear-bottle. The *Aryballos* and *Alabastos* are most frequent in the archaic, orientalizing period.

Among the vases with long, slender necks, the *lekythos* (Pl. IV.) was a form peculiarly attractive to the Athenians. We have already noticed the employment of those vases in Athens for funeral ceremonies, and need only here add as regards the shape that it has evidently been designed less for the purpose of pouring than for standing permanently in some assigned place, and, while retaining its contents against evaporation, presenting a fixed surface for a painted decoration in keeping with its surroundings. It would not be possible to pour from such a vase, holding it only with one hand, without breaking it. The *œnochoè*, finely adapted as it was for pouring, was ill suited, from its spreading trefoil mouth, for filling by dipping it into a large *crater*. For this purpose the best was the *prochous*, corresponding to a modern jug (see Fig. 46).

Of the large vases, from which smaller ones were filled with wine or water, or a mixture of both, the *crater* (Figs. 45, 46, and Pl. VIII.) was the ordinary form. However the handles or the foot might differ, it retained always its one essential of capacity; at times it differed so far as to deserve a new name as the *stamnos*, while among the later vases there are some which combine the *crater* with the *amphora* in such a manner that it is difficult to say

which name is the more applicable of the two. Akin to the crater is the *lebes* (Figs. 24–26), which in some instances had no foot, having been meant to be placed on a tripod or other stand.

So far we have not dealt with the conveyance of fairly large quantities of liquid. For this purpose the *amphora* (Fig. 50 and Pl. VII.) and the *hydria* were the principal shapes. They also experienced considerable variations. In Greek vase-painting at its best they may be said to have been the greatest favourites. On the other hand, they are extremely rare among the vases earlier than the 6th cent. B.C. The *hydria* in its oldest form is only a large *oinochoë* with two side handles, and its lip flattened down. The *amphora* may be supposed to have been a development out of the crater. Among the vases used for drinking, the form found most suitable at feasts, where often a drinker like Alcibiades in the *Symposion* called for a deep draught, was the *kylix* (Pl. V.). To the painter this shape of vase was no easy task to decorate, and this may be a reason why so many of them are without decoration, and, on the other hand, why some of the very finest work that exists is to be found on the *kylikes*. It is as if the very difficulty of designing a composition for a surface which bends in two different directions at once had acted as a challenge to the best talent among the painters. These vases are often signed with the names of the painters, and belong in general to about the middle of the 5th cent. B.C. They are rare in what is called the best period, B.C. 440–360, or thereabout. They recur in the latest stage of vase-painting, when they evidently were made for decorative purposes and not for use or the semblance of use, so large are they in dimensions frequently. In the archaic period the *kylix* inclined more to have a high foot (Fig. 14) and to be regarded as a vase which, with its contents, should be left standing.

A drinking-cup of perhaps finer shape is the *cantharos* (Pl. VIII.). It was the cup of the wine-god Dionysos, and ought to be a model of its kind, as indeed it is. The two

handles appear to have served for passing the vase like a loving cup. We have the same form, but only with one handle, in the *kyathis*, which besides is of smaller size and capacity, as if for a single and moderate drinker. A variety of the cantharos is the *skypphos*, the cup which Heracles is mostly represented as drinking from.

It will be understood that we have here given only the principal and most permanent forms of Greek vases.¹

In tracing briefly the development of painted vases, we had arrived at those which are distinguished by rows of animals painted on a creamy white slip. These, we had seen, were capable of being separated into two sections, according as the vacant spaces among the animals were filled in by geometric patterns or by rosettes. Before leaving these vases altogether it should be mentioned that Naucratis, a Greek settlement in the Delta of Egypt,² has furnished a number of them, which, besides being good specimens of the style of painting, have an additional interest from the dedicatory inscriptions incised on them. On one we find the name of a certain Phanes, who, there is good reason to believe, was the person of

¹ For a full explanation of the shapes of vases see Jahn's Introduction to the Catalogue of vases in Munich. Since then F. Winter has published an interesting memoir on the changes of fashion in the shapes of vases, chiefly in the period between 440-400 B.C.

² See Mr. W. M. Flinders Petrie, 'Naucratis,' Pls. 4-10; cf. p. 49. On p. 4 Mr. Petrie contends for the existence of Naucratis as a place of Greek traders before the date of Amasis (B.C. 570), who otherwise is believed to have first established the Greeks there (Herodotus, ii. 178). His argument would take us back to at least 688 B.C. On the other hand, he is prepared to consider a re-establishment of the town in the time of Psammetichos I. (650-611 B.C.), or even in 610-600 B.C. See also the second Memoir of the Egypt Exploration Fund, giving the results of Mr. Ernest Gardner's excavations at Naucratis.

that name of whom Herodotus relates that he had deserted from his Greek compatriots in Egypt, and joined the invading army of Cambyses. On his first deserting he was pursued and captured in Lycia, but escaped by a liberal gift of wine to the guards who had him in charge. His Greek compatriots subsequently made a cruel retaliation. When the army of the Persians which he had guided into Egypt, stood face to face with the Egyptian army, the Greek mercenaries stepped forward from the Egyptian ranks, took the two sons of Phanes, whom he had left behind, slew them within sight of their father, mixed their blood with wine in a vase, and drank it. It would appear from our inscribed fragment that Phanes had at some time previous to his desertion, offered an oblation to Apollo in Naucratis, and had then written his name on the vase, handing it over to the priests of the temple. One would like to believe that the priests, on hearing of his desertion, had cast his vase into the rubbish heap where it was found.

The archæological interest in the inscriptions on the Naucratis pottery turns on the evidence they afford as to date. On this point absolute agreement has not been reached. The general opinion, however, is that the inscriptions cannot be much, if at all, older than the time of Amasis, the Egyptian king who had assigned Naucratis as a settlement to the Greeks. No doubt there may have been Greeks settled there previous to the official location of them by Amasis; but we cannot suppose that these earlier settlers, if there were any, had temples of their own, when, in fact, Herodotus expressly states that Amasis granted them leave to build temples for themselves at Naucratis. The pottery found there is proved by the

inscriptions on it, to have been dedicated in Greek temples. Therefore the pottery is later than Amasis if due weight is to be attached to the statement of Herodotus. In that case the vases would fall in the first half of the 6th cent. B.C.

We have noticed on a previous occasion the vase from Naucratis, Fig. 45, with its curious inscription, and may now examine more closely Fig. 43, a circular dish with rows of animals in the style which we have described as exhibiting Oriental influence. The vacant spaces are filled in with bits of geometric pattern. The particular point we wish to notice is that in the interior of the vase is a form of rosette, which does not appear to have been copied from nature even remotely. The resemblance to a rosette seems to be purely accidental, and to have arisen from merely uniting the points of a star pattern with curved lines. If this is so, and if the Greek potters themselves got so far in the development of their native geometric patterns, it is easy to see how they would readily enough adopt the Oriental rosette pattern without thinking that they were borrowing anything very foreign, and without feeling any great indebtedness for it. We should thus have an instance of that unconscious progress which goes on approaching its goal without quite seeing what the goal really is.

Up to this point the vase painters have neglected the human figure as an element of decoration, except in some rude attempts on certain vases of the geometric class found chiefly at Athens, where they are supposed to have been influenced by Egyptian designs. As a rule they had kept to rows of animals and patterns, steadily gaining new skill in drawing, and at last turning boldly to the human figure. An

instance of one of their first efforts in the treatment of the human figure, may be seen on a plate from Camiros, now in the British Museum (Fig. 47), where the picture represents a combat of Menelaos and Hector, not as in the *Iliad* (xvii. 89–105), where

Fig. 47.



Pinax ; inscribed with names of Menelaos and Hector fighting over the body of Euphorbos. Brit. Mus. Dia. 1 ft. 3 in.

Menelaos, having slain Euphorbos, retires at the approach of Hector.¹ Possibly the pair of human eyes which look down on the scene are meant to suggest the invisible presence of Apollo on this occasion. Here the technical process is still to cover the vase with a creamy slip, and upon that to paint the design,

¹ Kekulé, *Rhein. Mus.* 1888, p. 481.

filling in the vacant spaces as before with bits of geometric patterns. The date of the writing is held to be the early part of the 6th cent. B.C.

At the same time the fashion of filling in the vacant spaces with rosettes as compared with geometric patterns, also held its ground, and, indeed, extended its scope so as to produce that fairly large class of early vases known as Corinthian. A good example of the success which attended the Corinthian potters in this direction, may be seen on the *œnochoë* Fig. 48, on which the spaces are filled in with rosettes; the secondary band of decoration is occupied with the traditional rows of animals, while on the main band is displayed a battle of armed men. The figures are drawn with much care and detail, while the composition of the scene recalls forcibly the sculptured pediments of the archaic temple in Ægina.

We are dealing with an age of fighting, and of preparation for the great contest with Persia, and it is no wonder if from this point onward, for some time, the principal designs on Greek vases represent combats of armed men; all the more noticeable, therefore, are such scenes as the peaceful act of offering sacrifice on Fig. 46. More generally known, and more interesting is a kylix in the Bibliothèque in Paris, representing the subjects of King Arkesilaos of Cyrenè bringing him the tribute of silphium, a plant which yielded much of his revenue. As there were several kings of the name Arkesilaos, we cannot be certain which of them is here figured. The forms of the letters, however, in which the name is inscribed, point to the latter half of the 6th cent. But how are we to account for a scene so peaceful, and of so purely local a character? There is, we think, no doubt that the

conception, though not in the smallest degree the

Fig. 48.



Hydria. Black figures on drab ground. Battle. Brit. Mus.

Ht. 1 ft. $2\frac{1}{4}$ in.

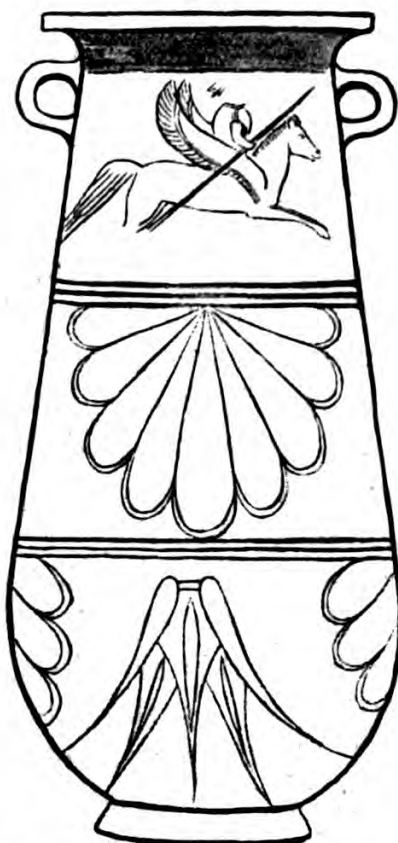
execution, had been borrowed from a familiar Egyptian

design. The Greeks of Cyrenè in the 6th cent. B.C. had no difficulty of intercourse with Egypt. The queen of Amasis was by birth a princess of Cyrenè, and in her time there was much coming and going between the two countries. The vase in question is probably later than that age, though not a great deal. The general character of the drawing on it may be gathered from the scene of sacrifice in Fig. 46.

Before leaving the Greek settlements in the Delta of Egypt, we must take note of the vase in Fig. 49, which represents a class of pottery found at Defenneh, a modern village retaining the name of the ancient town of Daphnæ, which Herodotus visited. Daphnæ had been a frontier garrison between Egypt and the East. The pottery found on this site

exhibits the highest technical skill conceivable at so early a date. The designs painted on the vases are mostly Greek, but the shape of Fig. 49 is distinctly derived from an Egyptian bronze pitcher. On others of the vases the influence of the East—at all events the influence of Asia Minor—is quite obvious (see

Fig. 49.



Situla : Bellerophon on Pegasus.
 Rev. : Chimæra. From Daphnæ.
 Brit. Mus.
 Ht. 1 ft. 6 in.

Mr. Petrie's Memoir, entitled 'Tanis ii.,' p. 70). In the Daphnæ pottery we get well into the region of Greek legend, such as we see it on the chest of Kypselos, and on works of archaic Greek art which in general point to the first half of the 6th cent. B.C. as the date of their production.

It is a question whether Mr. Petrie is right in identifying the site of Daphnæ with the "Camps" where Psammetichos I. established his mercenaries from Asia Minor. Herodotus would hardly have given two names to one and the same place without some special indication.

The art of the vase painter had thus made a rapid advance in treating the human figure, especially in observing its movement, and in picking up a facility in rendering the details of costume and armour. But it was still, for the most part, in the stage of observing men only when they are engaged in some action more or less violent. In that stage it remained some time, gradually accumulating skill of hand. At present we can trace this artistic activity clearly in such Greek settlements as those of the Egyptian Delta. But probably there were other centres also. The Greeks of Asia Minor had, from early times, displayed a singular faculty for the art of painting in its higher walks; this natural gift could hardly but have re-acted on the lesser art of vase-painting, and when we consider the intimate relations existing between the Greeks about Samos, for example, and their kinsmen in Egypt, we may fairly allow that the skill of Asia Minor had largely operated in bringing about that excellence which we find in the pottery from Naucratis, from Daphnæ, and from the island of Rhodes.

In Greece proper this particular manner of vase-

painting—imbued with Oriental taste—is associated mainly with Corinth. The trade and intercourse between Samos and Corinth would sufficiently account for this fact. To this may be added the trade with the Greeks in Egypt. From Corinth a later development of this style appears to have been introduced into Etruria. How far the Etruscans may have modified it by their own peculiarities of taste and skill, it is often difficult, if not impossible, to determine. On many vases of this date found in Etruria, we see a rudeness of execution which we are inclined to trace to a native Etruscan origin, but cannot positively do so until we know more than at present of the state of the art in the centre or centres whence the Etruscans imported much of their pottery.¹

The next important step in vase-painting was accompanied by a technical change. The habit of painting in black on a white ground now ceased to be a style, and was not practised afterwards unless in certain exceptional cases. One of its disadvantages had been the perishable nature of the white slip which formed the ground for the design. Another, and perhaps more serious disadvantage lay in the too strong contrast of black and white, which had the effect of presenting the figures like black silhouettes, or as if they were placed between us and the light, the white ground acting as the light. The new stage of vase-painting removed

¹ Dümmler, in 'Mittheilungen des Arch. Inst. in Rom,' 1888, p. 159. See also *Annali d. Inst. Arch.*, 1885, pl. D. p. 127, where a crater found at Caere is published, having grotesque figures of satyrs much like those that are frequent on the Daphnæ pottery. The names on the Caere vase are inscribed in the Corinthian alphabet: ΟΜΡΣΦΟΜ, ΜΟΡΔΑΙΑΙΦΟ, ΜΟΥΒ. The first of these names appears to be written from left to right = Osrikos; the other two read from right to left = Ophelandros and Eunous.

both these defects. The red clay of the vase became the ground on which the design was painted, in black as before, with details marked in by incised lines, or expressed in purple or white, which latter colour, now that it was released from forming the ground, became available for indicating the faces, arms, and feet of women, the white hair of age, or, it may be, a white horse. But these additional colours were not put on till the vase, with the design painted-in wholly in black, had been first fired; they were then put on above the black, whereupon the vase was again fired at a lower heat, and became durable in a high degree. Between the red colour of the clay, toned down as it was by a glaze, and the lustrous black of the figures, there was a harmonious effect calculated to throw up any detail, however minute, which might be bestowed on the drawing. This alone was a great advantage for the painter, and many instances can be shown where his work, allowing for the still archaic character of the age, is of the highest excellence and charm.

This, as we have said, was the next noticeable change, viz., the painting of the figures in black directly on the red clay of the vase. At the same time, the change was not brought about without an interval of transition, which we ought to observe. There is a class of vases commonly called Chalcidian, from the prevalence of the Chalcidian alphabet in the inscriptions on them. These vases are in some cases covered with a brownish slip, so that the technical difference between them and the older style with its creamy slip is only a difference of colour approaching more and more to the natural red of the clay. Others of them dispense with the preliminary slip, and present us with designs painted straight on the clay. But it

is to be remarked in these cases that the painter seems generally to have been shocked with the strong contrast of black figures on a red ground, and to have set himself to modify this effect by covering over the larger masses of his black colour by patches of purple and white, which he excuses by making them serve to indicate accessories of dress and such like. More than this, he breaks up the remainder of his black masses as far as possible by patterns incised through them. Further, it is characteristic of these Chalcidian vases to exhibit very evident signs of being imitated in their shapes from metal utensils; as, for example, in the formation of the handles, the neck and the foot. These are facts which go to prove their affinity to the older style. Their affinity to the later and purely black figure style is recognisable in the increasing skill they display in the drawing of the figure, and the composition of designs.

We must notice also a class of archaic vases found in Etruria, chiefly at Caere, as to which it is as yet difficult to determine what the influence was that gave them their peculiar artistic character. In some cases that influence was clearly no other than local Etruscan taste, the vase painter being an Etruscan who took his general design from Greek pottery of the time, but altered it as no Greek could have done. It is assumed that the Etruscans had acquired some skill of this kind from the Corinthian potters who settled among them, but it is not believed that this art suited their tastes or gifts. Undoubted Etruscan vases with painted designs are not numerous, and they are constantly bad. The vases in question, however, do not nearly descend to this degree of misapplied talent. We may take, as an example, a vase

in Berlin, known as the Amphiaraos vase (engraved in the *Mon. dell' Inst.*, x. Pls. 4, 5). Some claim it to be a direct import from Corinth into Etruria (Robert, *Annali dell' Inst.*, 1874, p. 110). Others again, bearing in mind that the Etruscans had certainly imported painted vases from the Greek potters resident in the Delta of Egypt, whether by way of Corinth or not, are inclined to recognise this, and other vases of similar style, as having been influenced by Greek potters in Egypt, if not actually made by them. The presence of figures of negroes on one of these vases seems to support this view.

We pass now to the regular black figure ware, that is, vases with figures painted in black on the red clay, the black being in places softened down by purple and white accessories, and by lines incised through the black to indicate the inner markings of anatomy or of costume. Fig. 50 is one of these vases. Its shape is that of an amphora. For some time the vase-painters had, it appears, lost sight of this shape except on rare occasions. Nevertheless, it had enjoyed much popularity in the early geometric style. Here we find it revived with much favour.

It will be noticed that the eye of the citharist is circular, and it may here be pointed out that the rule of the black figure vases is to represent the eyes of men as circular, those of women in an almond shape (see Fig. 51). But this distinction was not much observed in the early art of Asia Minor, as we see in the pottery of Naucratis, Daphnæ, and Camiros, where Asiatic influence was felt; there the almond-shaped eye is conspicuous in men as in women.

In general, the old habit of employing rows of animals to cover the secondary places of a vase has

not always been shaken off, but on vases where it has been retained it has been pushed into as much

Fig. 50.



Amphora : black figure on red ground. Citharist. Brit. Mus.
Ht. 1 ft. 3¼ in.

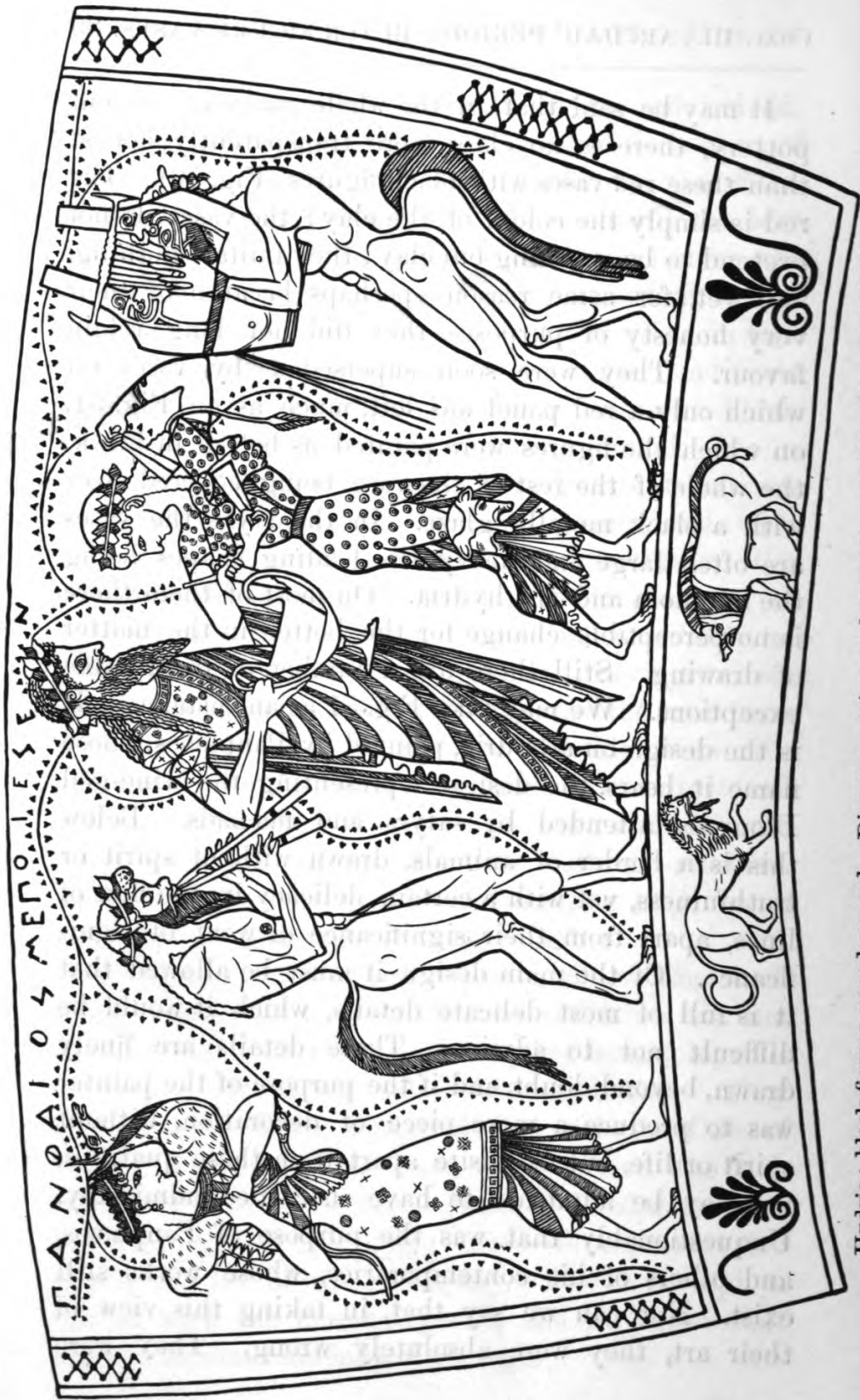
obscurity as possible, that is to say, to a narrow

border along the foot of the main design, and, indeed, the animals are mostly drawn with an obvious want of intelligence and spirit. Proportionately the main design has become enlarged, so as to occupy the best part of the vase. This larger scale of the figures was in itself calculated to evoke greater freedom in the drawing, and if that result did not follow—as in fact it did not—we must blame the rigidity of the traditions under which the art still laboured. Obviously a black figure standing flat against a red ground, like a silhouette, could not but provoke the painter to enliven it with inner markings of incised lines, and with accessories of purple and white, thus continuing the traditional habit, and thus missing the opportunity of greater freedom in his contours, the possibility of which is obvious in modern silhouette drawings, where great expression is attained. Such was the case for a while, but gradually we notice a healthier sign in a number of vases where the accessories of purple and white are dispensed with, or nearly so, and only the inner markings of anatomy and costume retained. There we see a very distinct approach to largeness of style, as well as actual largeness of figure.

As regards the subjects represented on the black figure vases, that is a question on which we will not enter further than to say that they are mostly legends of heroes, with a fair admixture of deities. They could not be better compared than with the Odes of Pindar, where also we have ever present the rich legendary lore of Greece. Neither Pindar nor the vase-painters of this stage cared to represent too closely the life of their own day. They were apt to run off with the heroic legends, and no doubt that was the mental tendency of the age.

It may be said that, in the whole range of ancient pottery, there is no class more transparently honest than these red vases with black figures (Fig. 50). The red is simply the colour of the clay; the vases do not pretend to be anything but clay; they imitate nothing, and yet, for some reason—perhaps because of their very honesty of purpose—they did not long retain favour. They were soon superseded by vases on which only a red panel was left, much as on Fig. 51, on which the figures were painted as before in black, the whole of the rest of the vase being covered over with a black metallic glaze. In this style the vases are often large and heavy, the leading shapes being the amphora and the hydria. On most of them there is no perceptible change for the better in the matter of drawing. Still there are a number of remarkable exceptions. We may take Fig. 51 as an instance. It is the design on a hydria, painted by Panphæos, whose name it bears, the design representing the wine-god Dionysos, attended by satyrs and mænads. Below this is a border of animals, drawn without spirit or truthfulness, yet with a certain delicacy in the flow of lines, apart from their significance or want of significance. Of the main design it must be allowed that it is full of most delicate details, which it would be difficult not to admire. These details are finely drawn, beyond doubt, and if the purpose of the painter was to produce a mere piece of decoration, without spirit or life, but exquisite apart from these qualities, he may be admitted to have succeeded admirably. Unquestionably that was the purpose of Panphæos, and others of his contemporaries, whose works still exist. Nor can we say that, in taking this view of their art, they were absolutely wrong. They were

Fig. 51.



Hydria: black figures on red ground. Dionysos, satyrs and maenads. By Panphæos. Brit. Mus.

right in their search after a refined decorative effect, and if they chose to employ the human figure to this end, they cannot be blamed for that. But they can be blamed justly for not having seen that the human figure was capable of being much better employed, with more truthfulness to its natural forms and movements. It is true that the age was not yet ripe for this higher view, and it is a comforting reflection that the very excesses of Panphæos and others, in their straining after refinement and decorative effect, were the best possible means of irritating the public taste, and inducing a bolder and freer spirit among the vase painters.

It is in keeping with the tastes of these painters that they were fond of signing their names on the vases in pretty large letters or otherwise ostentatiously. And here it is right that we should notice the theory of Brunn, that these vase painters did not live in the beginning of the 5th cent. B.C., as is commonly supposed, but were in fact a race of imitators who lived two centuries after that date, and who may be considered as standing towards the genuinely early painters much as the pre-Raphaelite Brotherhood of our generation stood to the true pre-Raphaelite painters.¹ They traded, argues Brunn, on a false taste of their time for the refined art of the archaic age, just as in sculpture from time to time down to the age of Hadrian, attempts were made to revive a fictitious taste for archaic art. But sculpture, it is to be remembered, never ceased to be prosecuted as an

¹ H. Brunn, 'Probleme in der Geschichte der Vasen-Malerei,' Munich, 1871. Since then he has further developed his theory with reference to the painted vases found in excavations at the Certosa of Bologna.

art, whereas vase-painting, so far as our knowledge goes, was driven out of existence by the wealth and the passion for metal vases which characterized the Alexandrian age. The last stage of the potters was, as we shall see, to imitate the reliefs on metal vases, and to cease from painted designs. If the facts were not so, we would be strongly tempted to see with Brunn in works like the vase of Panphæos, evidence not only of false taste—that we admit—but of an attempted revival of archaic art in a later age.

The mention of Panphæos leads us to notice here such of the vases bearing the signatures of artists as are older or at least contemporary with him. There must have been some end to be gained by these signatures. There must have been buyers to whom the signatures afforded a guarantee of exceptional value, to say nothing of a possible professional pride on the part of the painters. The custom can be traced back to about 600 B.C. We have given on Pl. III., a vase signed by Aristonofos of about this date. The vases of this early class have been collected in an excellent form by Benndorf ('Vorlegeblätter,' 1888).¹ Taken in historical order the names may be placed thus: Aristonofos, Timonidas, Chares and Milonidas

¹ A new vase from Bœotia, now in the Louvre, has been described by E. Pottier, in the 'Gazette Archéol.,' 1888, p. 4. The name is Menaidas. In this article M. Pottier has made a considerable number of additions to Klein's 'Vasen mit Meistersignaturen,' 2nd ed. So also the painter Sophilos has become better known by the recovery of several fragments belonging apparently to the vase of which only a part bearing his name was previously known. The subject so far as it exists resembles a scene on the François vase and represents Hermes followed by two groups of goddesses named ΗΕΣΤΙΑ (Hestia), ΔΙ . . . ΤΕΡ (Demeter), ΒΕΤΟ (Leto) and ΧΑΡΙΨΟ (Chariclo). The execution also resembles that of the François vase ('Mittheilungen d. Inst. Arch. Athen.,' 1889, Pl. 1, p. 1).

(Corinthians), Theozotos, Gamedes and Menaidas (Bœotians), Œcopheles, Clitias and Ergotimos, Nearchos, Exekias, Nicosthenes, Amasis, Archicles and Glaukytes, Skythes, Timagoras, and lastly Panphæos, who began to work also in the red figure style, though not with much success. We have mentioned here the chief of the early vase painters, and to be more particular we should call attention to the work of Timonidas and Theozotos as excellent representatives of the somewhat rude yet forcible art of their day. Later on, but still in the archaic black figure manner, we are amazed at the fertility of invention, the rich abundance of legendary scenes and motives which we find on the famous François vase in Florence, bearing the names of Clitias and Ergotimos, one the painter, the other the potter. The designs on it will be found in Benndorf's 'Vorlegeblätter,' just cited. There also, on Pl. 4, are given some pieces of what has been a beautiful archaic vase bearing the signature of the painter Nearchos, whose sons Tleson and Ergoteles are known from several specimens of their work in vase painting. But they are unequal to their father, whose name, apart from his skill, has of late years been brought into notice by the finding on the Acropolis of Athens of a marble pedestal, which, judging from the inscription on it, had supported some object—whether a statue or not—provided by Nearchos as a tithe out of the profits of his works ('Jahrbuch,' 1887, p. 141). The inscription says further that the sculpture which had stood on this vase was the work of Antenor, son of Eumares.¹ With this sculptor we propose to deal afterwards.

¹ Pliny, *loc. cit.*, calls him Eumarus; but it would seem from the inscription (C. I. A., IV., Suppl. 373⁹¹) that Eumares is the

Meantime it is interesting to note that his father Eumares was an Athenian painter known to us from Pliny (xxxv. 36), and accredited with a certain inventiveness in the art of painting. It is clear from several other inscribed pedestals found on the Acropolis under circumstances which possibly make them older than the Persian invasion in 480 B.C., that it had been a habit to dedicate there painted vases. We have, for example, the names of Euenor,¹ probably of the same family as Eumares, Nesiades, and above all, Euphronios ('Jahrbuch,' 1887, p. 144). It would be pleasant to think that Athenian taste in those times had recognised the great charm of vases by men like Euphronios, and had placed them on the Acropolis for all to see. But there is some difficulty in understanding how these vase painters could have attained so much excellence in drawing, and so great freedom in composition at a time when as yet sculpture was far behind, if we may judge from the examples of it found on the Acropolis under the same circumstances as the inscribed records of the vase painters. No doubt there is archaism in the work of Euphronios and his contemporaries, but that could be explained without actually placing those painters in a pre-Persian epoch.

By that time the old black figure style had been quite abandoned, except for special purposes, and had given place to the red figure vases, not, however, without some few memorable exceptions on the part of Euphronios and others. The exceptions we refer

right form. The inscription is there read: 'Αντήνωρ ἐπ[οίησεν] ὁ Εὐμάρους τ[ὸ] ἄγαλμα.

¹ C. I. A., IV. Suppl. 373⁸⁶ and 373⁸⁸.

to consist of vases which are first covered with a creamy-white slip, and when this is dry a design is then painted on it in outline with a fine brush, and with a large ideal conception of the human form such as is associated with the great fresco painters of the age of Polygnotos. A convenient example will be found in the Bale kylix in the British Museum, representing Hephæstos and Athena finishing the making of Pandora.¹

W. Klein, in the second edition of his 'Euphronios,' has made an elaborate study of the works of this painter, to which may be added the observations of Studniczka ('Jahrbuch,' 1887, p. 161), and the subsequent memoir by Klein ('Vasen mit Lieblingsinschriften,' 1890), in connection with the pet names Leagros and Glaucon, which Euphronios and others sometimes inscribed on their vases. It has been argued that these pet names, to which the vase painters added the epithet *καλός*, were the names of persons popular at the time for youth and beauty. On this principle the name Leagros is identified with that of the Athenian general in a battle 467 B.C. (Herodotus, ix. 75), who might have been a youth in Athens popular for his beauty about thirty years before then, say 497 B.C.. Leagros had a son named Glaucon, who commanded at Corcyra, B.C. 432 (Thucyd. i. 51), and the name of Glaucon on later vases may refer to him. Where it occurs on older vases it may refer to the father of this Leagros who also bore the name of Glaucon.

Leagros as a pet name is found sixteen times on vases, which otherwise would be judged from their

¹ Lenormant et De Witte, 'Mon. Céram.,' III. pl. 44.

style to belong to about the date of the Athenian general. On a vase in Oxford is a figure of a Persian archer mounted on a horse and inscribed with the name of Miltiades *καλός*, the style of painting being that of Epictetos. It is argued¹ that the Persian archer and the name of Miltiades point clearly to the battle of Marathon, whence a reasonable date for the vase, and therefore also for the period of Epictetos and his school, would be after 480 B.C. Another interesting name, that of Hipparchos, is used by Epictetos and several other painters who do not sign their names. The name is one which was for long detested by the Athenians. It was the name of that son of the tyrant Peisistratos whom the Athenians slew B.C. 510 (Herod. v. 55; vi. 123), and whose slaughter they recorded in a public work of sculpture, and in a popular song. But clearly the painter Epictetos could not well have been a contemporary of both Miltiades and Hipparchos, and since the later date derived from the Miltiades vase is the preferable of the two, we must suppose that he meant by Hipparchos some later person of the name.

The finding of inscribed pedestals on the acropolis of Athens, on which occur with apparently equal conspicuousness the names of vase painters and of others whom our literary records have taught us to regard as painters of a higher order, has led to a re-investigation of these records from the point of view of the vase painters. Our literary source in this matter is Pliny (Nat. Hist. xxxv. 5 and 34). It is interesting to observe that the first name he mentions is one Philocles, whom he calls an Egyptian, doubtless a Greek resident in the Delta.

¹ Klein, 'Gr. Vasen mit Lieblingsinschriften,' publishes this Oxford vase as frontispiece. See also pp. 15-16.

In another passage he speaks of a painter Bularchos in Asia Minor of the time of the Lydian king Candaules. Then he passes to Corinth, naming several painters there, of whom he mentions two as using hardly any colour, but as still *spargentes lineas intus*, and as adding the names of the persons represented. No satisfactory explanation of the phrase here quoted has been found. But if we are to compare the work of these men with the early Corinthian pottery, then we might suggest this explanation, that the phrase is meant to apply to the habit of filling in the spaces around the figures with rosettes as well as with names, such as we have already seen to have been the case on the vases. Pliny appears to associate these painters with the Kypselidæ of Corinth, 7th cent. B.C.

Passing on (xxxv. 34), he notices the Athenian painter Eumares, whom we now know to have been the father of the sculptor Antenor, and says that he was the first to distinguish men from women in his paintings, apparently by painting the flesh of women white and giving them almond eyes, as compared with the round eyes of men on the black figure vases. It is proposed, therefore, to class Eumares with Clitias and Ergotimos, the authors of the François vase in Florence, about the time of Solon ('Jahrbuch,' 1887, p. 148). Eumares was succeeded and surpassed by Cimon of Cleonæ, who introduced *catagrapha, hoc est obliquas imagines et varie formare vultus, respicientes, suspicientes vel despicientes. Articulis membra distinxit, venas protulit. præterque in veste et rugas et sinus invenit*. It is proposed to compare with Cimon of Cleonæ the vase painters Epictetos and the others who with him are believed to have introduced the red figure style. It may not be clear what Pliny means by *catagrapha*

or obliquæ imagines, and by his statement as to facial expression. Still the reference to drapery, veins and joints, with his precision in treating them, recalls the manner of Epictetos not inadequately. Possibly also it was Epictetos who introduced the habit of making the eyes of men and women alike of a nearly almond shape—a habit which lasted throughout the severe red figure style.

The next great advance in vase painting was that of Euphronios and his school. Keeping to the red figure style they sought for greater largeness and ideality of forms. In this respect they seem to have been influenced by the great fresco painter Polygnotos and his contemporaries, and this is the more evident on those vases where they painted their designs, at all events the designs on the interiors, on a white ground, as we have already mentioned. One of the characteristics of Euphronios is to give his figures very large noses. Like his contemporaries, he makes the eyes of men and women alike, in some cases rendering the cornea by a circle with a dot in the centre, a habit which Duris very regularly indulges. The usual rendering is a round black spot for the cornea. The bold largeness of style of Euphronios is in striking contrast to the elegance of detail and tendency towards small expressive figures in the works of Duris and Cachrylion, while Hieron again tries to revert to a simple large style in his figures. But Hieron, though retaining a large style in his figures, does not share with Euphronios and some others the freedom and boldness of composition which distinguish their vases from the general formality of older times, in which the composition is carefully balanced, one half against the other half. A great

proportion of the signed vases are in the shape of kylikes, of which Pl. V. will serve as an example. We give here a list of the vase painters who followed on after Panphæos, with whom our previous list concluded: (1) Andokides, (2) Thyphēithides, (3) Hischylos, (4) Epictetos, (5) Epilycos, (6) Sicanos, (7) Chelis, (8) a series of vases with the pet name of Memnon, but unsigned, (9) Cachrylion, (10) a series of vases with the pet name of Leagros, but unsigned (11) Oltos and (12) Euxitheos, (13) Euphronios, (14) Euthymides, (15) Sosias, (16) Amasis II., (17) Pistoxenos, (18) Duris, (19) Hieron, (20) Brygos, (21) Polygnotos, (22) Xenophantos, (23) Meidias, (24) Xenotimos, (25) Assteas, and a few others less known.¹

This habit of signing vases was at its height during the transition period, when the black figure style, of which we have been speaking, was running a natural course towards mannerism and affectation of refinement, and when the next stage of red figures on a black ground had not as yet obtained a firm footing. This view of the case is confirmed by the fact that certain of these painters worked in both manners, as did Panphæos, for example. Further, it is apparent that some of those who worked exclusively in the new red figure style, as for example Epictetos, preserved the stiff, elaborate manner of drawing which had characterized the older black figure style, while others again, like Euphronios varied largely in their manner, like men who were seeking, but had not yet mastered

¹ Benndorf's and Conze's 'Vorlegeblätter,' give excellent illustrations of Duris (1874-5), of Duris and Brygos (1876), of Euphronios (1873), of Hieron (1879), of Assteas (1880), and of Oltos and Euxitheos (1884). We have already referred to the illustrations of the archaic vase painters in the 'Vorlegeblätter.'

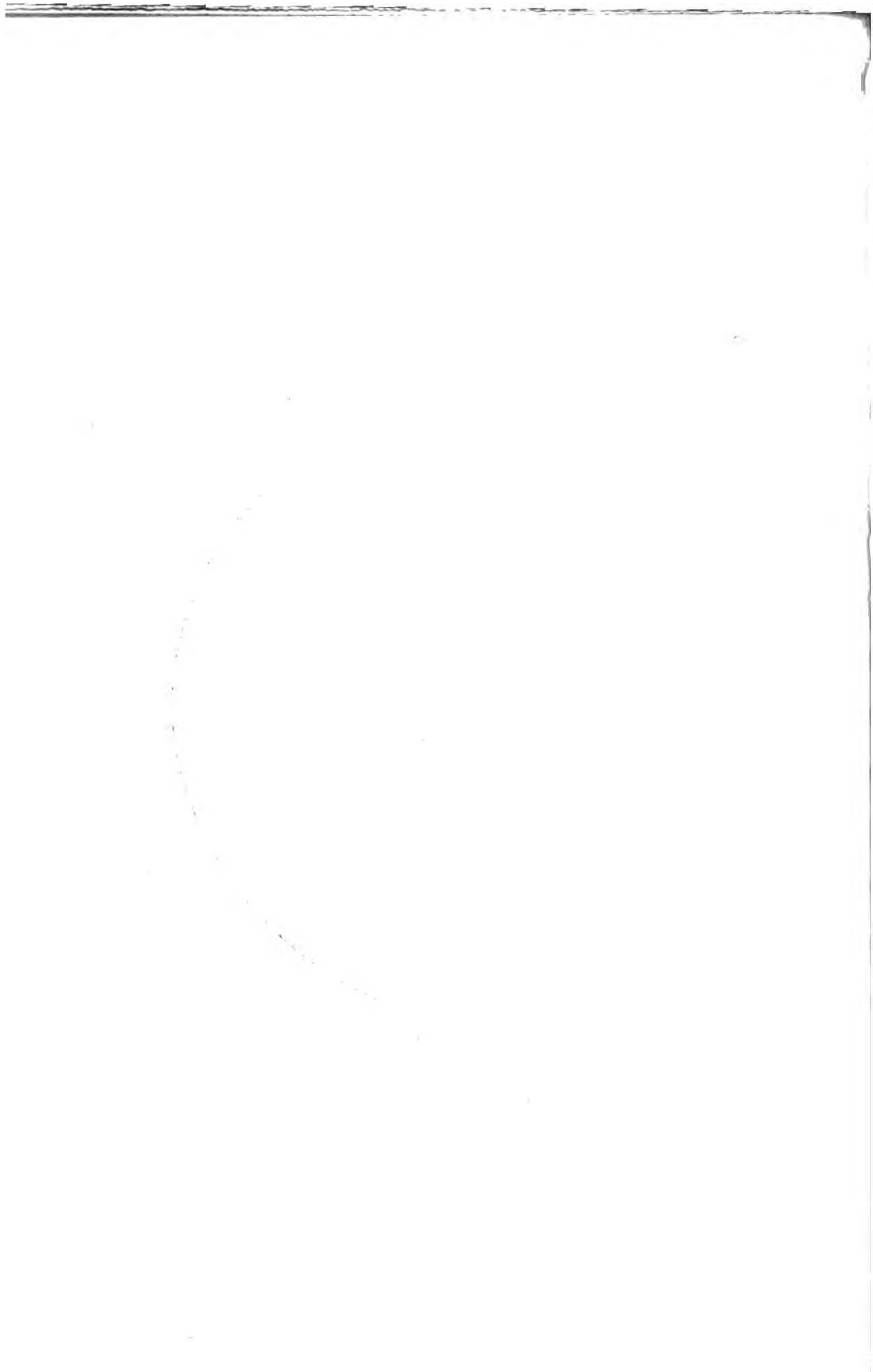
the freedom of conception and of drawing which the new style opened up. It is true that when this freedom had been once attained there were painters who still continued the habit of signing their names; for example, Brygos, whose vases are full of free and masterly drawing, still later, Meidias and others. But these exceptions only show the force of habit, all the more so when we bear in mind that the favourite shape of vase with these painters was the kylix, on which above all other shapes the custom of signing had been handed down. By comparison, it is only occasionally that signed vases occur after this date, until we reach the last stage of pottery in the 3rd and 2nd cent. B.C., when, as we have said, vases with reliefs imitated from silver vessels came into favour, and when the new fashion justified, if it did not call for, the addition of the name of a man who was known to excel in work of the kind.

We have been led to anticipate the next important step in the development of vase painting. It has been seen that during the period of the black figure style a change had been made from the honest red vase, with its black figures. We have seen that the entire vase was next covered with a black glaze, except for a panel which was left red, and on which the designs were painted in black as before. This change evidently found favour, for from this time forth Greek vases were as a rule covered with this black metallic glaze, except where the design was to be. With the larger vases then coming into use some such limitation of the space for the design was obviously an advantage to the artist. At the same time he was still trammelled by the squared-off space in which he had to work, and above all by the system



Kylix. Banquet. (Brit. Mus.)
Dia. 12½ in.

Face p. 100.



of figures filled in with black, and the inevitable temptation to counteract the masses of black by details in the inner markings and in accessories. What he needed was a change of system in which these lines of details should no longer be secondary, and more or less optional, but should be leading and essential lines. This was obtained by making the figure stand out in the red colour of the clay, by surrounding it closely with a black glaze, and by drawing in the whole of the markings of anatomy, and other details with a fine brush loaded with black glaze. The painter would think twice before he used his brush, because a fault would spoil his figure in quite a different degree from a fault in the older manner. We can still see his anxiety in this respect, for on many of the best red figure vases it is easy to trace the preliminary drawings which the artist had sketched on the vase—not with his brush, but with a fine ivory tool which left a visible line on the soft clay. We can see how he corrected these lines over and over again before finally taking his brush and drawing them in with black. It is generally supposed that the best part of an artist's work is done before he takes his brush or clay in hand; it is done by preliminary thinking and planning. If that is so, then the very method of working involved in the new system of vase painting, was such as to favour and encourage this careful preliminary study. Hence it was that the art reached its highest excellence in the red figure age.

The change to red figures appears to have taken place about the time of the Persian wars. Greek art was henceforward free. That is to say, it was free within certain limits. The vase painter could not place

his figures up and down on his vase. He must still dispose them more or less as tradition prescribed. He must keep also to the class of subjects which tradition had handed down. But within these limits he found a wide scope for freedom, and used it well. You may often see on vases of the best quality a number of figures which at first sight appear to be repetitions, the one of the other. But looking more attentively at them you will recognise an almost incredible variety in the secondary movements, and an amount of artistic invention which conveys the purest delight to those who watch it, and seek to give it its due. On no vase that we know of is this more beautifully illustrated than one in the form of a knuckle-bone, found in Ægina, and now in the British Museum.¹ The subject is a dance of girls, in which they are being instructed by an old man.

The red figure style appears to have owed much at its commencement to the contemporary fresco-painters, and this is particularly noticeable in a class of large amphoræ where the painters have obviously been aiming at the largeness of manner which is associated with the frescoes of Polygnotos and his immediate followers (Pls. VI., VII.). Apart from largeness of manner the figures on these amphoræ are actually much larger than is usual on Greek vases. Not unfrequently there is an ungainly want of freedom of movement, and a striking failure in attaining the true and accurate proportions of the figure. The aim was to conceive a human figure of an ideal mould transcending the ordinary type with its accuracies and its neatness. These large simple

¹ Very imperfectly given in Stackelberg, 'Gräber der Hellenen,' Pl. 23.



Amphora. Apollo and two Muses. (Brit. Mus.)
Ht. 1 ft. 11 in.

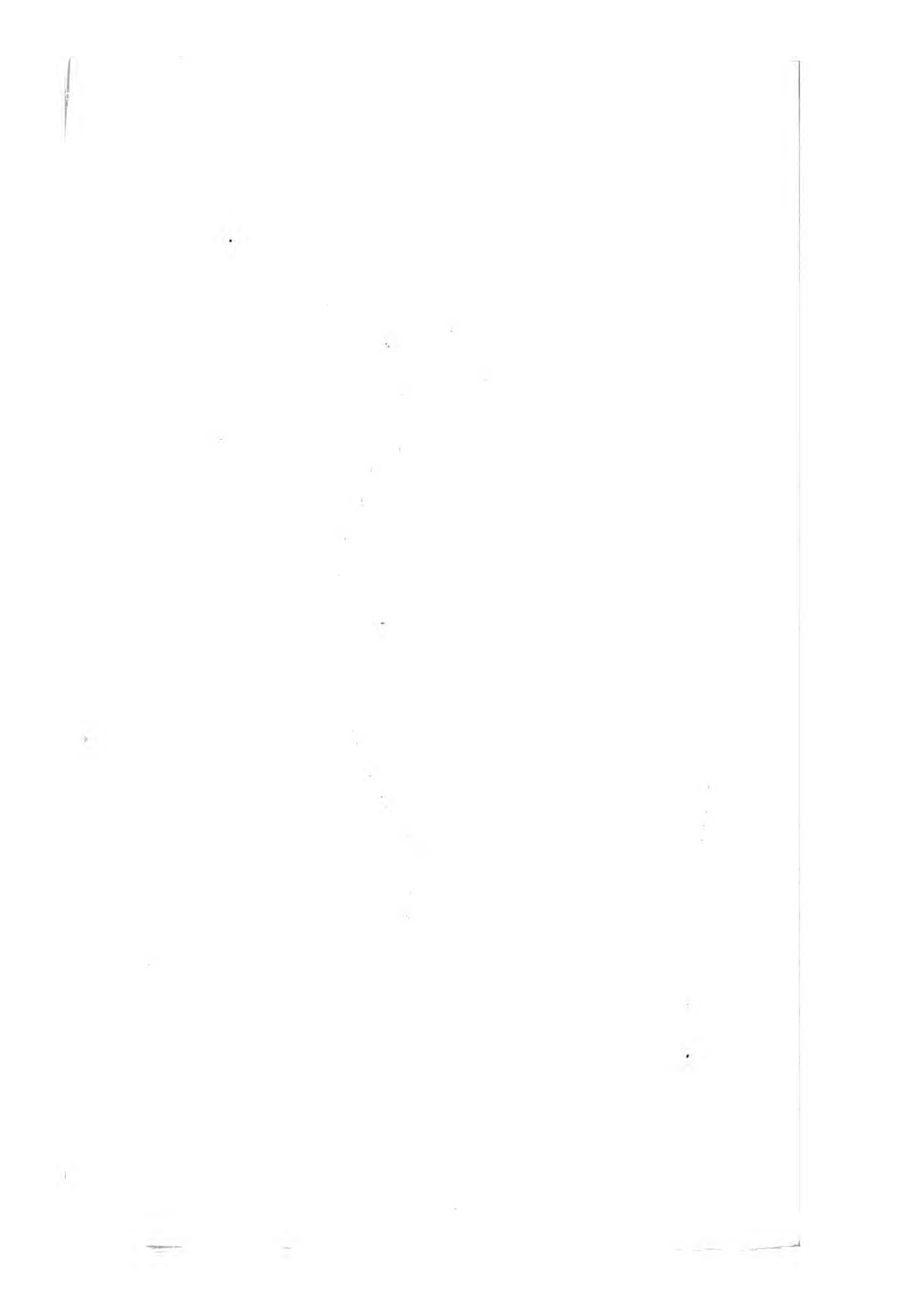


PLATE VII.



1.



2.

1. Cup. Dancing to Music. (Brit. Mus.) Ht. 8 in.

2. Amphora. Dionysos Sacrificing. (Brit. Mus.) Ht. 1 ft. 6 in.

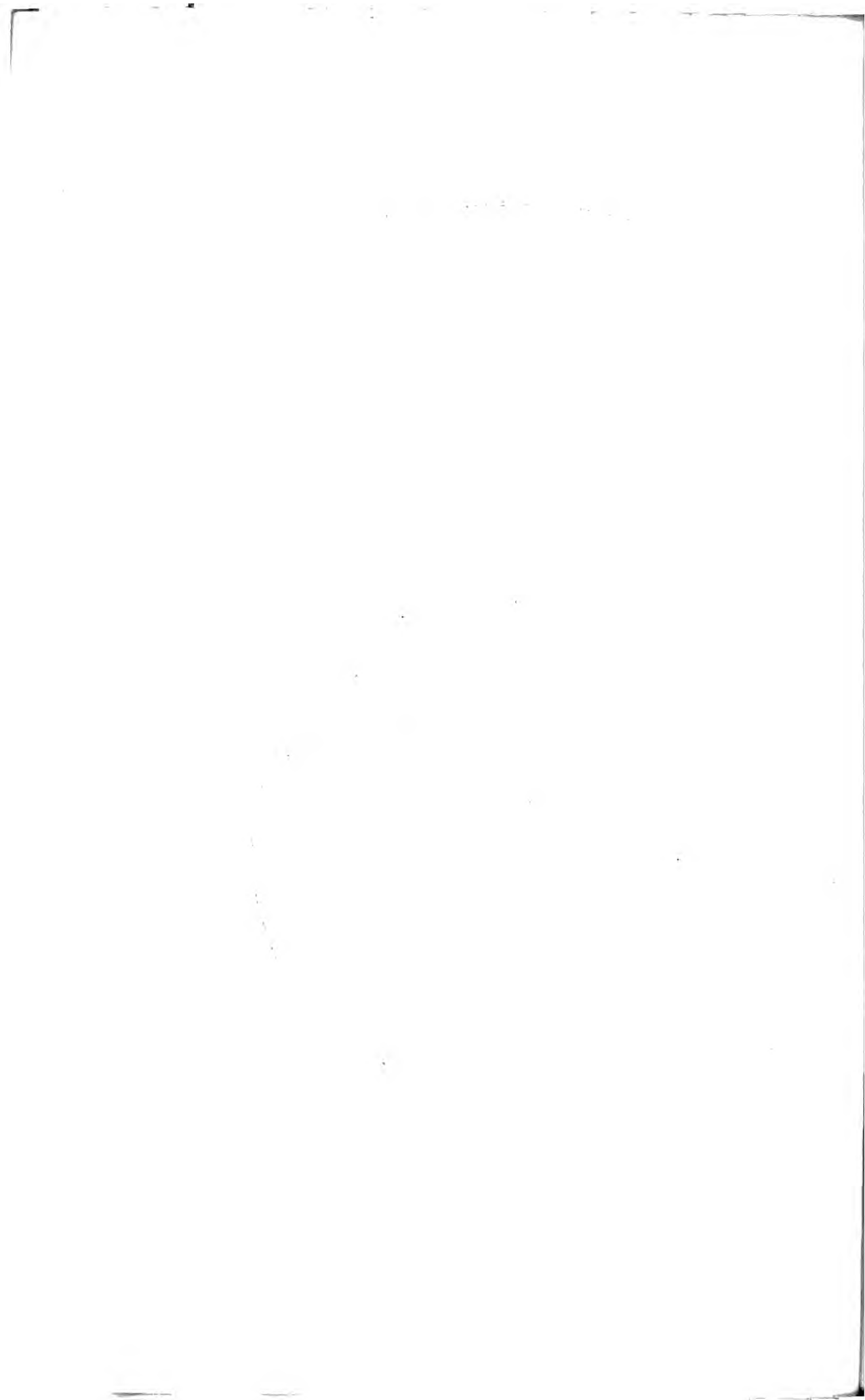


PLATE VIII.



1.



2

1. Cantharos. Death of Orestes at Altar of Delphi. (Brit. Mus.) Ht. 6 $\frac{1}{4}$ in.
2. Crater. Victorious Citharist. (Brit. Mus.) Ht. 1 ft. 6 in.

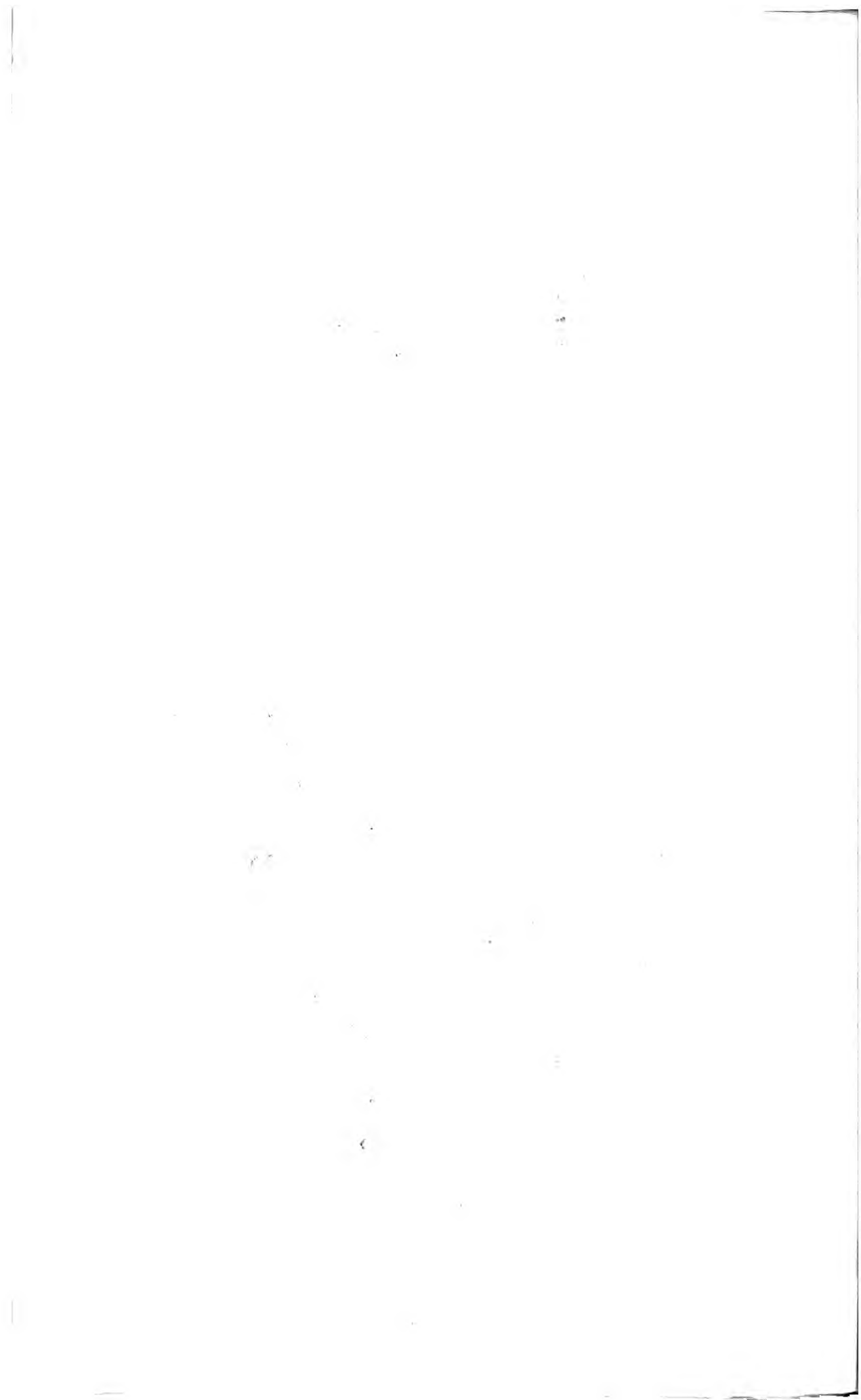
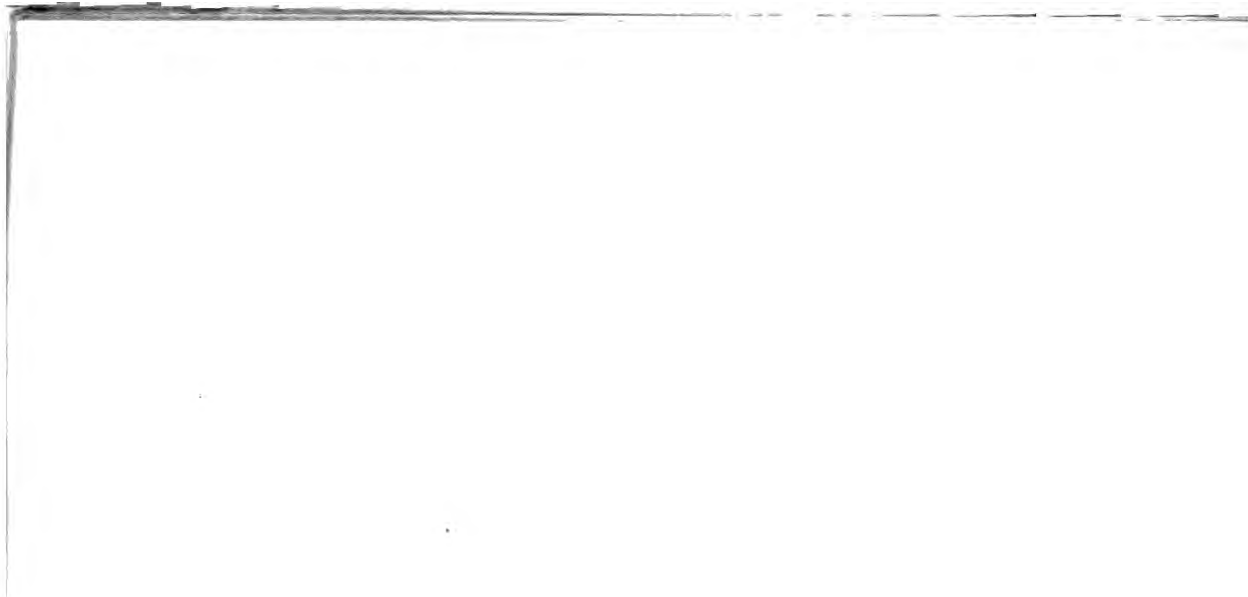


PLATE IX.



Vase in form of Sphinx. Round the Cup, Erichthonios, Kekrops and his Daughters. From Capua. (Brit. Mus.) Ht. 11¼ in.

Face p. 102.



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200

201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300

301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400

figures were the result. It was soon perceived, however, that inaccuracy in the proportions was not at all necessary to largeness of manner. Pheidias taught that, in his sculpture, and the vase painters soon learned the lesson of accuracy (Pl. VIII.). At the same time in learning it they undoubtedly lost much of the strong ideal effect which had been their glory, and gradually passed on to a stage of pure beauty of form and accuracy of detail.

At this point we may notice again the Athenian lekythi, of which we have already had occasion to speak, and of which Pl. IV. is an example.¹ They are interesting technically because of the designs being drawn on a ground prepared with a white colour. The designs are drawn chiefly in outline, and often with an extremely fine brush, though of course there is also, as was to be expected, on vases produced to meet the unexpected needs of death and funeral ceremonies, much rough and rude workmanship. But the general effect may be held to give us on a small scale a fair notion of the work of the great fresco-painters. In both cases the first necessity was a bold unerring outline. A line once drawn must remain; there was no chance of correcting it; though indeed on inferior specimens such corrections can be seen often enough.

With these lekythi may be classed a very beautiful vase in the form of a sphinx (Pl. IX.). The unusual fact of the sphinx being painted white recalls

¹ An extremely interesting memoir on vases of this class is that of E. Pottier, 'Étude sur les Lécythes blancs Attiques,' 1883, with 4 plates. See also Benndorf's 'Griech. und Sicil. Vasenbilder,' especially Pl. 33 with a deathbed scene, Pls. 26 and 34, mourners at a tomb, and Pl. 27, Charon in his boat.'

the special taste of the lekythi painters, while the subject round the cup equally betrays an Athenian origin. The forms of the sphinx are slightly archaic, but the red figure drawing belongs to the best age.

It is seldom that the date can be fixed to a year of any particular Greek vase or class of vases. We are all the more fortunate in possessing some of which this can be said; we refer to the series of prize amphoræ (Pl. X.) obtained at the Panathenaic games at Athens, and conveyed thence by the winners to their home in Cyrenè or elsewhere. The dates of these amphoræ in the British Museum range from B.C. 368–333; and we have thus a series of paintings which may not only teach us the progress, or decline, accomplished during a certain period, but also be a standard by which to judge backwards and forwards. You will see from the example given in Pl. X. that there is no longer much question of refinement or delicacy of drawing. It is more like the work produced while practising facility in drawing the figure; it is an illustration of the average skill of the day.

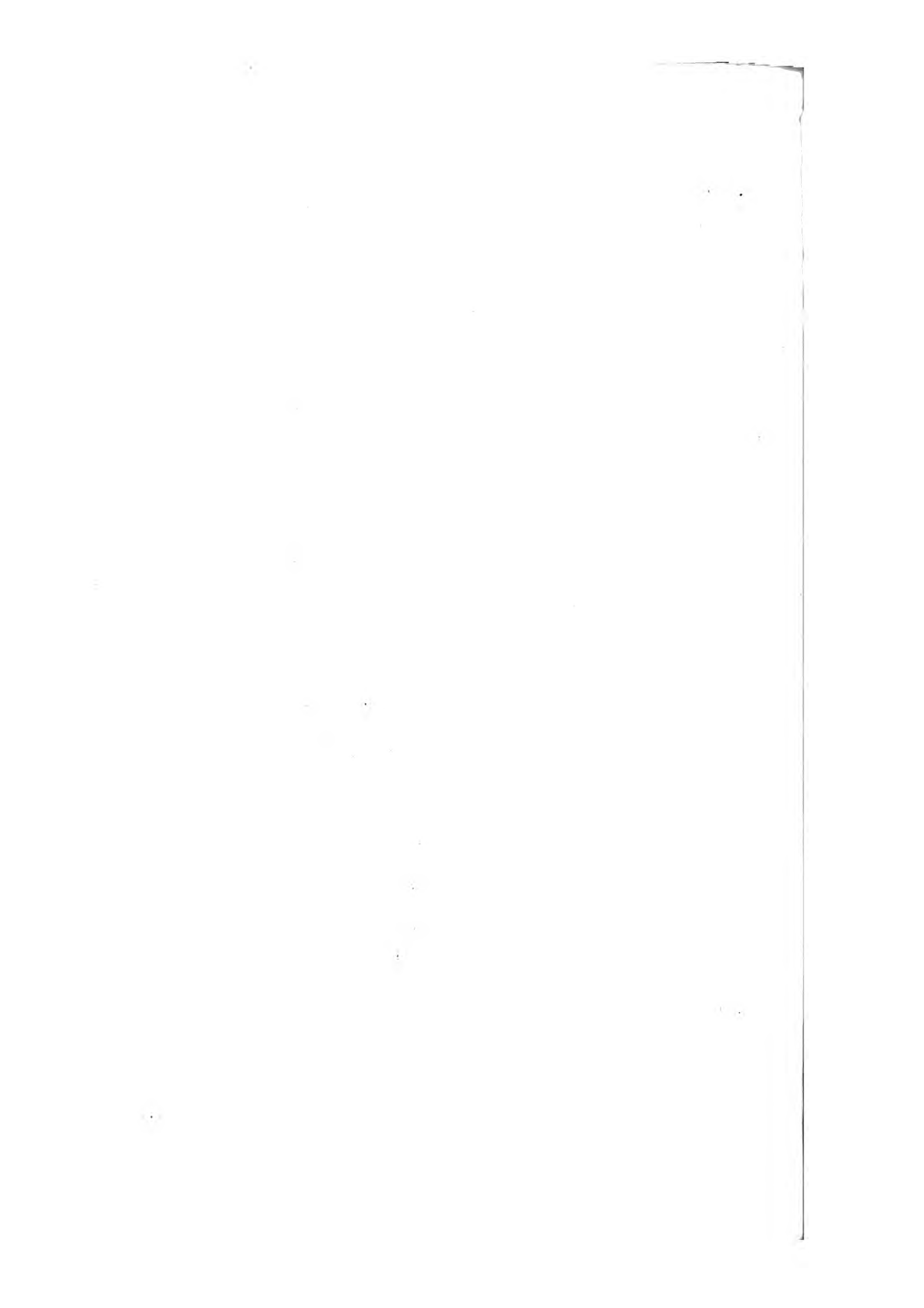
On the other hand it is only right to observe that the painters of these prize amphoræ had to work under difficulties: the manner of filling in their figures with black colour, was a manner which had long ceased, except in this particular class of vases, where it was traditional and compulsory. Then again it may be judged from the general level above which the drawing on these vases never rises, that no effort was made to obtain the services of specially talented painters if there were any. But, all this considered, it is beyond doubt that by the year 333 B.C. Greek vase-painting had become a thing of the schools, to be

PLATE X.



Prize Amphora from Panathenaic Games. Found at Cyrenè.
(Brit. Mus.) Ht. 2 ft. 1 in.

Face p. 104.



learnt up to a certain point of facility in drawing the human figure, and not much else. After this there is little from Greece itself that is noticeable. On the other hand, the Greeks of Southern Italy did not yet yield so completely. We have from that quarter a series of Apulian vases, as they are called, which is not only numerically large, but embraces a number of vases of great size, obviously intended for display at funeral ceremonies. Frequently the design represents a tombstone with an ideal figure of the deceased, and mourning friends bringing offerings. At times the drawing of the figures is large, and fine in style, reminding one of the state of art about 400 B.C.

Mostly, however, it is a good deal later than this, and, in not a few instances, is a complete caricature of Greek art. Curiously enough a love of actual scenes of caricature is common on these later vases; scenes from the comic stage are frequent, as in the Fourth Vase Room of the British Museum, where in several cases it runs into disagreeable grotesqueness. Again, there are scenes such as that of Odysseus, Diomedes, and Dolon, on a vase in the British Museum, or Heracles in his madness setting fire to his household goods, and about to throw his infant on the fire, which are not represented as on the stage, but yet betray a taste for more or less grotesque incidents on the part of the painters. The latter vase is signed by the painter Assteas, who is reckoned among the last of the painters who inscribed their names on their works. To the same class belongs the large crater in the British Museum representing Alcmena, who has taken refuge on an altar to escape the anger of her husband Amphitryon. But he, with

the help of Antenor, has heaped before the altar a pyre of wood, which they set about lighting. Alcmena appeals to Zeus, who appears, partially visible in the upper part of the vase, and first hurls two thunderbolts at Amphitryon and Antenor, and next sends a great shower of rain to put out the pyre. The shower is indicated by a rainbow enclosing a space which is thickly dotted with drops of rain, and by two Hyades above the rainbow, who pour water from vases down on the pyre. The names of the persons—except the Hyades—are inscribed on the vase, as is also that of the painter Python. It is probable that this subject had been treated in this manner in the lost drama of Alcmena, by Euripides. It is certain that the later vase painters had frequent recourse to his plays.

In examining the large class of vases of the strictly Apulian class, it will be noticed that there is a marked love of floral ornament on the necks and handles; but this spirit is carried farther than at first sight appears, and in a curious direction. On a large series of them we see a habit of putting in a rosette on vacant places in the design, as if the horror of vacant spaces which influenced the archaic vase painters had been revived in a measure. At times it would seem as if it had been a law to put at least one small rosette in somewhere on the vase.

So also in regard to some other patterns such as the wave, they seemed to have been seized upon by certain classes of painters, and are in fact often the mark of special methods of painting. The wave-pattern, for instance, is a very common accompaniment of a series of these latest vases, in which the figures, instead of standing out in the brilliant red of the older vases, appear in a dull colour, as if the vase

itself were made of some inferior clay; very often these figures are painted over in white colour.

Before reaching this, its last stage, vase-painting struck out in one direction which deserves notice. It was no easy matter to produce a red figure vase, except for a painter well trained to the special work. A simpler method was to take a plain black vase and paint a design on it in a red colour, with some medium which fixed it, in a measure, on to the black below. Some few examples of this method exist from a fairly early time; but they are not executed with the same attention and success as are the later specimens. Among those latter is one in the British Museum representing Ganymede, as it seems: the figure is finely-modelled, the roundness of the limbs being shown by shadows formed by hatched lines, and by white colour to indicate the high lights.

The restraint which Greek artists imposed on themselves is never more conspicuous than when we remember that of the vast multitude of painted vases still existing, only a very few separate classes can be made out. At a distance the majority of the vases resemble each other, like the majority of men. But on closer inspection, how infinite the differences! It would seem as if the painters had followed nature in her method of adhering to a type which has once been found perfectly suitable, and yet encouraging endless variety in the individuals.

Yet occasionally the Greek potter departed from his regular types in search of something unusual. A very successful example of that is to be seen in the vase in shape of a sphinx already referred to, in Pl. IX. But, with all his success in this and in some other similar experiments, the temptation

was not sufficient to lead the potter out of his regular way.

Lastly we need do no more than glance at a series of vases for which also the potter invited the assistance of the sculptor or modeller, rather than the painter. We mean those vases of black ware on which were attached designs modelled in relief, occasionally with the addition of a floral ornament from the hand of a painter. Contemporary with them are vases of the same order of black ware, but with a figure painted in white, or white with purple or yellow, over the black glaze. These vases of black ware with designs in relief begin to date from the 3rd or 2nd cent. B.C., and it is probable that they continued in use down to Imperial Roman times, when they were finally superseded by the red moulded ware familiarly known as Samian and Aretine (from the ancient potteries at Arezzo). A general belief that this black ware had been a substitute among poorer people for the rich vases of silver which wealthy men could alone possess has lately been proved by the finding at Roquemaure in France of two silver dishes of the shape known as *phialè mesomphalos*, which have been embossed with reliefs almost identical with those on two black ware *phialæ* in the British Museum. The two latter are duplicates from the same mould, and represent the apotheosis of Heracles in four groups, each with a Victory driving a quadriga to the left. In each group she is accompanied by a different deity; (1) Athenè, (2) Heracles, (3) Ares, (4) Dionysos. Each group is separated by a small Eros in the air and by an emblem of the deity in the chariot that follows: before the chariot with Athenè is a winged serpent, before Heracles a hind (?), before Ares a boar, and

Dionysos a kid. On one of the two silver phialæ from Roquemaure we have five similar groups of Victory driving a quadriga to the left with (1) Athenè, (2) Heracles, (3) Ares, (4) Hermes, (5) Dionysos, the Erotes and emblems being omitted. On the other silver phialè we have four groups of Victory driving with (1) Athenè, (2) Heracles, (3) Apollo, (4) Dionysos, but with the difference that there is in each group an additional Victory near the heads of the horses. The style of this later phialè is much finer than the other or than those in the black ware.

Akin to ware of this class are the bowls with external reliefs representing scenes from the Trojan war, from the dramas of Euripides and other sources, with the names of the characters or indications of the scenes frequently inscribed on them. A fine series of these vases with Trojan subjects, now in Berlin, has been published lately by Prof. C. Robert in a most interesting memoir,¹ which he begins by referring to the incident when Nero, on the day preceding his murder, and in surprise at the news of the revolt of the army, which had been brought to him at dinner, upset a table with two favourite bowls, which he called "Homeric," because of the subjects embossed on them.

This rapid outline is no more than an introduction to a vast subject, and that an introduction mainly to its technical side. We have hardly dared to touch upon the designs on the vases from the point of view in which they reveal the painters as men who shared in the thought of their contemporaries in matters of legend and myth, men who in this respect joined

¹ *Homerische Becher*, Winckelmann's Festprogramm, 1890, pp. 1-96.

hands with the poets and sculptors of their day. It is for the student now to take that point of view; for the ultimate charm of the vases lies just where they reflect poetic thought, not where they present us with a scene familiar in Æschylus, Sophocles, or Euripides, though that is interesting too; but where we recognise them to be moving along lines parallel to those of the great poets.

As an interesting example of comparative study in this direction we may mention a memoir, in which is discussed the position of Eros, the god of love, in literature and on the vases.¹ Among the early poets it is curious to observe how with some, Eros is merely the passion of love, while in others he is a distinct personality. In archaic vases the personality of Eros is conspicuously absent. It is only with the red figure vases he comes into play. He was known to Pheidias, and appeared prominently on the base of the statue of Zeus at Olympia. It was left to Praxiteles to develop him fully; possibly it was in his time that the attribute of a bow was assigned to him; the bow is rare on vases but frequent in later sculpture.

Or we may compare the painted vases with the early Epic poets. Taking the vases in the three classes of archaic (or black figure), red figure, and Apulian, we find, as has been pointed out in much detail,² that in all these periods Epic poetry exercised a powerful influence, that the influence of the tragic poets did not begin to operate till the red figure style, and that the lyric and Alexandrine poetry had no

¹ Furtwaengler, 'Eros in der Vasen-Malerei.'

² H. Luckenbach, 'Das Verhältniss der Griech. Vasenbilder zu den Gedichten des epischen Kyklos' (Jahrbücher für Class. Philologie, Suppl. vol. ii., pp. 453-637).

apparent influence. Among many instances of the relation of archaic vases to the Epic poets there is the scene of the chariot-race on the famous François vase in Florence.¹ Compared with the description of the games at the funeral of Patroclus in the Iliad, there are remarkable differences. The race is run with quadrigæ, not with bigæ, such as the Homeric heroes mostly used; and the names of the competitors are not those of the Iliad. But at the date when this vase was painted the chariot-race at Olympia was run with quadrigæ.²

Or, again, the student will find an inviting subject in those personifications of phenomena in the natural and spiritual worlds which are not unfrequent on the vases, as M. Pottier has lately shown.³ It is interesting to observe how certain compositions, such as Heracles strangling the Nemean lion or wrestling with Nereus had almost worked themselves out in the archaic or black figure period. It would seem as if the rigidity with which the painters adhered in these cases to one unvarying type must naturally have led in time to an abandonment or nearly so of the particular conception from the mere force of monotony. But meantime the painters were acquiring skill in drawing all the better for avoiding novelty or variety of design.

In the large number of instances, where we find a particular design repeated over and over again, it would be instructive to collect tracings from the vases, to reduce all the tracings to one scale and then superimpose them, so as to find out which of the tracings has most in common with the rest—in other words, which of them is the greatest common measure, so to

¹ Mon. dell' Inst. Arch., iv., Pls. 54–58.

² The quadriga was introduced at Olympia in Olymp. 25, the biga, Olymp. 53. Pausanias, v., 8, 7, and 10.

³ Monuments Grecs (1889–90), p. 1.

speak, of the rest. We should thus find out also whether a vase painting which proves to be a greatest common measure of its class is also one which would in general be regarded as beautiful of its kind.

On the black figure vases most of the figures represent grown up persons—the men are generally bearded and rigid in attitude and action. On the red figure vases youth, suppleness of action and gaiety abound. The short bodies and long legs of the archaic age change to the more just proportions of men brought up in freedom and comfort, as they were after the Persian wars. As a special instance of affectation in rendering human proportions we may notice a class of black figure amphoræ (Brit. Mus. B. 25, 26, 27, 35, 45) frequently called "Tyrrhenian." The extremities of the figures are attenuated to an absurd degree, reminding us strongly of the bronze cuirass, Fig. 52, which also has a Tyrrhenian or Etruscan character. For the rest these vases are marked by elaborately careful drawing, together with rich costumes studded with rosettes of white spots and purple disks. The composition of the groups is rigid and formal with a love of balance and upright lines.

Again the history of costume is a subject which can be studied better on the vases than on other remains of the Greeks (Pl. XI.). Doubtless on the vases we lose the bright colours of the dresses in actual use, such as we see them on the archaic marble statues on the acropolis of Athens, and such as we read of in the inscriptions which record the presents of dresses made by Athenian girls in the temple of the Brauronian Artemis.¹ For instance, the inscriptions speak of 'A himation with a broad purple border of wave-pattern

¹ See Anc. Greek Inscriptions in Brit. Mus., No. 34, and C. I. Gr., 155; C. I. A., ii., 764.

all round,' or 'A girl's chiton, with plain border of purple that has been washed out.' These instances refer to the second half of the 4th cent. B.C. From that date onward there was apparently little or no change of fashion. The typical Greek costume, such as we see it constantly reproduced in modern works, had become established. In earlier times, however, there had been a good deal of change. One particular occasion of change has been rendered memorable by a passage of Herodotus (v. 87) in which he tells how on the news of a disaster in Ægina, the Athenian women used the sharp points of the pins or fibulæ, with which their dresses were fastened, to kill the man who brought the evil tidings. Whereupon it was ordained that they should change the Dorian dress (made of wool, and fastened with fibulæ), which they had hitherto worn, for the Ionic linen chiton, which needed no fibulæ (*ἵνα δὴ περόνησι μὴ χρέωνται*). This happened about 540 B.C. What is here called the Dorian dress was common, adds Herodotus, to the whole of Greece in archaic times.

It is believed that the fibula was unknown to the ancient Oriental nations. Doubtless they wore linen principally, like their modern representatives; on the other hand the climate of Europe made woollen garments indispensable, and equally the use of fibulæ in primitive times. They are found everywhere among the prehistoric remains of Europe, and the inference is that the fibula was a purely European invention. On the evidence of Herodotus it remained in use, as we have seen, in Greece down to about 540 B.C., and this is confirmed by the finding of bronze fibulæ with pottery of nearly this date in Bœotia and in Rhodes.¹

¹ Studniczka, in the 'Mittheilungen aus Athen,' xii. p. 8, claims

No. 3, from the François vase, shows how the fibula was employed about this time to fasten the dress on the shoulders; No. 6 represents the change to the Ionic chiton, with sleeves, and a fold falling over the girdle, but without fibulæ.¹ The name for the women's garment which was fitted on to the body of the wearer, either by fibulæ in early times, or by seams in later times, was the chiton, with its varying forms of chitonion and chitoniskos. For warmth on the breast and shoulders the chiton could be doubled over so as to fall down to the waist (diploïdion), or this piece might be made separate and fastened on at the shoulders (Nos. 3, 11, 13). The chiton was gathered in round the waist with a girdle, and, if too long, could be drawn up under the girdle and let fall over it to a greater or less extent, according to taste (Nos. 6, 9, 13, 16). The illustrations (Pl. XI.) will show the gradual changes; they show also the changes that occurred in the upper garment, which was worn thrown round the body like a shawl (periblema), by men equally as by women on the archaic vases. By the end of the 5th cent. B.C. this upper garment had given way to the himation, with which we are familiar in later art on figures of men and women alike. The chlamys worn by young men, and fastened on the right shoulder, was a variety of the himation.

that the absence of fibulæ from the tombs at Mycenæ proves these tombs to be Pre-Dorian. I think the presence of fibulæ would have been better suited to that purpose. In any case we could not well expect fibulæ and swords in the same set of tombs. Warriors would not wear fibulæ.

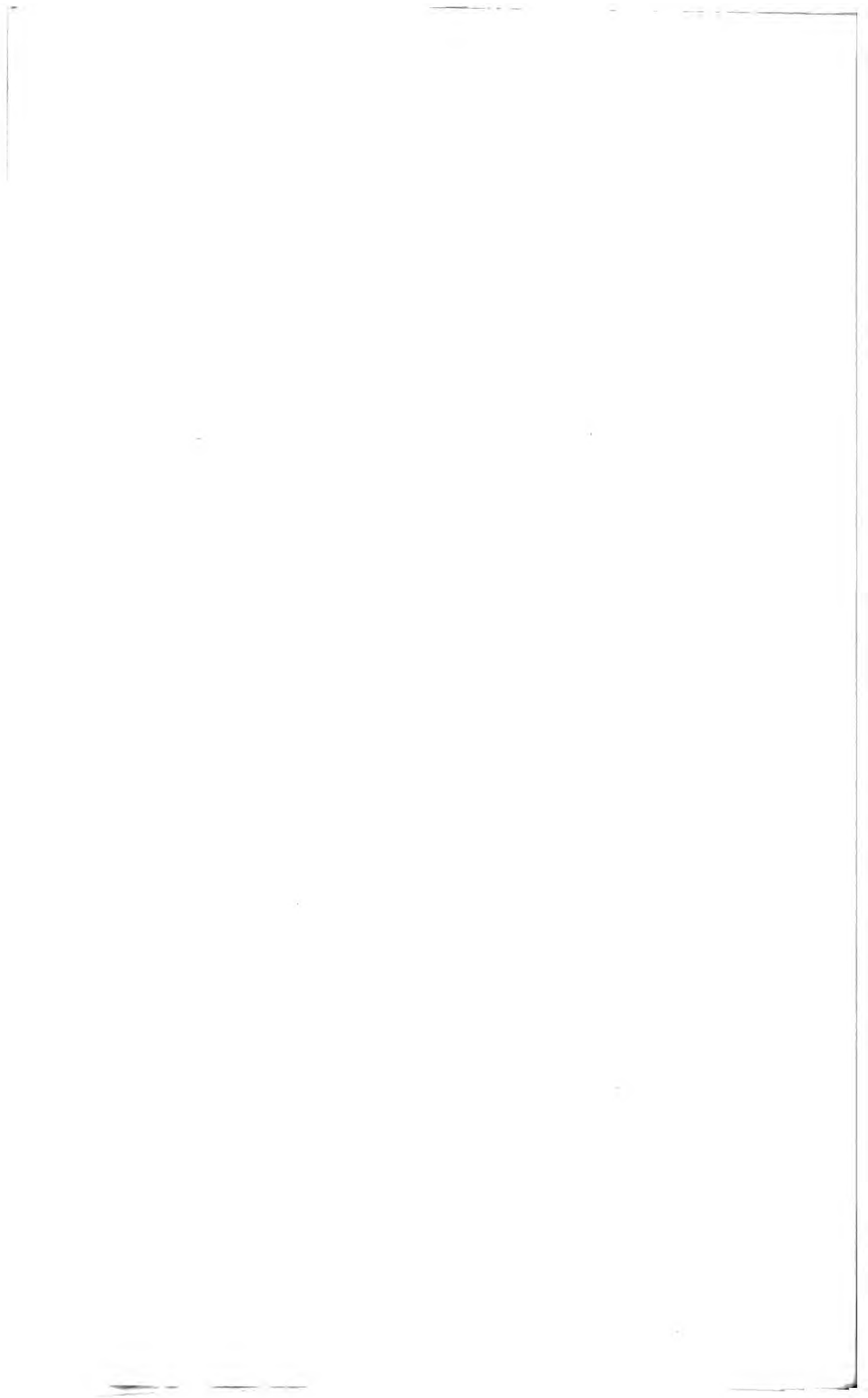
¹ These and the following figures are taken from the interesting memoir of Boehlau, 'Quæstiones de re vestitaria Græcorum,' and from Studniczka's 'Beiträge zur Geschichte d. altgriech. Tracht,' 1886.

PLATE XI.



THE PRINCIPAL FEMALE COSTUMES FROM PRIMITIVE TIMES TO THE
1ST CENT. B.C.

[To face p. 114.]



As regards the costume of men, there is an important passage in Thucydides (i. 6), to the effect that in insecure early times the Greeks carried arms on every occasion, like barbarians, and that the Athenians were the first to take up a more refined manner of life; among the rich the older men took to wearing linen chitons, and having their hair braided and fastened with golden pins in the form of a grasshopper. As an illustration of this, we have an incident in the life of Theseus, related by Pausanias (i. 19, 1). While workmen were engaged on the temple of Apollo Delphinios at Athens, and had got as far as the roof of the building, Theseus appeared on the scene; the workmen, observing that he wore a long chiton reaching to his feet, and had his hair carefully braided, thought proper to make fun of his appearance, saying "here is a young lady fit for marriage walking alone." Whereupon Theseus unloosed some oxen from a cart standing by, and threw the cart, or part of it, higher than where the roof of the temple was to be. It was the Lacedæmonians who first set themselves against this luxury of apparel, and introduced moderation. Nothing is plainer in the history of Greek costume than that, when the early semi-barbarous times had been got over, a reaction set in towards over-refinement of manners and dress. For a while, indeed down to the Persian wars, the ruling goddess was Charis, or "Grace."

DESCRIPTION OF PLATE XI.

- No. 1. From a gold ring found at Mycenæ. Studniczka, Fig. 8.
Primitive period.
„ 2. From a vase. Studniczka, Fig. 10. Probably 7th
cent. B.C.

- No. 3. From the François vase in Florence. Probably 6th cent. B.C.
- „ 4. From a vase. Boehlau, Fig. 9. Chiton, diploïdion on breast, and himation worn as a shawl. 6th cent. B.C.
- „ 5. From a Cypriote vase. Studniczka, Fig. 41. Possibly 6th cent. B.C.
- „ 6. From a vase. Boehlau, Fig. 4. 6th cent. B.C.
- „ 7. Pattern of chiton with diploïdion. Studniczka, Fig. 1. From 5th cent. B.C. onwards.
- „ 8. Pattern of chiton. Studniczka, Fig. 7. From 5th cent. B.C. onwards.
- „ 9. From a vase. Boehlau, Fig. 12. Chiton, with diploïdion falling over girdle, and a scarf over shoulders, 480 B.C.
- „ 10. From a vase. Boehlau, Fig. 21. This dress, characteristic of the end of the 6th and beginning of the 5th cent. B.C., consists of a chiton, only visible on one shoulder and at the feet; over it a himation, which is folded over along the top like a diplois, and falls in long ends or pteryges. 500 B.C.
- „ 11. Statue from Herculaneum, showing how the chiton was put on. Studniczka, Fig. 4. 400 B.C.
- „ 12. From a vase. Studniczka, Fig. 2. Chiton with diploïdion open down the right side. 440 B.C.
- „ 13. Caryatid of Erechtheum. Boehlau, Fig. 29. Chiton with fold over girdle and diploïdion on breast. 420 B.C.
- „ 14. From a vase. Boehlau, Fig. 31. Under-chiton reaching to feet; over it a short chiton or chitoniskos. 420 B.C.
- „ 15. From Thasos relief in the Louvre. Studniczka, Fig. 20. Chiton with chlamys over it folded nearly double. 500 B.C.
- „ 16. Statue of Diana from Gabii. Studniczka, Fig. 21. Putting on a himation, which is folded like a chlamys, over a chiton girt at the waist and under the breasts. 1st cent. B.C.

CHAPTER IV.

DESIGNS INCISED ON BRONZE.

ALLOWING for the difference of material, the artist who incised a design on bronze would bring to his task much the same qualifications as a painter of a vase. Like the painter he had to rely mainly on accuracy of outline. He might indeed, if he preferred a rich effect of colour to pure drawing, have recourse to the process of gilding, or plating parts of his design with silver or gold. The richly-plated daggers found at Mycenæ illustrate the prevalence of such a taste in early times, while again it is almost a characteristic of the latest incised designs to be plated over with silver. So that at the two extremes in the history of this art, the love of bright colour overpowered the gifts of drawing, much as in the history of vase-painting.

Or again, if we take the subjects represented in incised designs, we shall find them frequently presenting the closest resemblance to designs painted on vases. An incised design was from its nature suited only for a small and limited surface; it would not be visible on a large scale. Whatever could be held in the hand, such as a mirror-case or a mirror, was the best field for its display; and thus appealing to private enjoyments like the art of vase-painting, it

made the same choice of subjects, and followed the same method of representing them.

As compared with what was to be expected, the number of incised designs on bronze that have been found in Greece is small. For the most part they have been obtained at Corinth, and belong to a period not earlier than 400 B.C. To some extent this scarcity may be accounted for by the fact that Corinth, which had been a principal centre of bronze work, became after its capture by the Romans, as it is to-day, an active and profitable scene for those who made it their business to ransack her tombs for the pottery and bronzes (*necro-Corinthia*) they contained (Strabo, c. 381). An amusing illustration of the passion for Corinthian vases of metal is given by Petronius (Sat. 50). Trimalchio, the type of a new-made man, thinks it a fine joke to claim that his vases must be true *Corinthia*, because he purchased them from a smith named Corinthus. Then he is afraid of being thought ignorant of the true meaning of *Corinthia*, and proceeds to tell how at the taking of Troy, a wretched fellow, called Hannibal, heaped all the statues of bronze, gold, and silver together and made a fire of them. After a short digression about vases of glass and the man who because he had made a glass vase that would not break, was beheaded by the emperor so that the secret might die with him, Trimalchio, explains with delightful confusion some of the subjects that were figured on his silver vases, *e.g.*, Cassandra slaying her children, the dead boys lying so natural that you would think them alive. On another vase was to be seen Dædalus putting Niobe into the Trojan horse! But to return to sober fact. Almost every specimen of this art that has yet

been obtained in Greece, has been excavated at Corinth. And if we may suppose the ransacking of the tombs that goes on now to be but fitful as compared with the industry of the spoilers in ancient times, some idea may be formed of the loss that has been sustained.

Apart from the general scarcity of these designs from Greece, there remains to be accounted for the particular scarcity of specimens older than about 400 B.C. That can hardly be a mere accident. For if we examine the extensive series of designs incised on bronze, which the Etruscans have left us, we shall find there also comparatively few that belong to the archaic age. It may be assumed, therefore, as regards Greece, that this art was not practised to any great extent in the archaic period, but that it rose into repute about 400 B.C., under the influence of the love of pure drawing which then dominated the great schools of painting in Corinth and Sikyon.

But if Greece has yielded comparatively few specimens of this art, what shall be said of the great numbers of bronze mirrors with incised designs that have been found in Etruria,¹ or of bronze cistæ similarly decorated, that have been obtained at the ancient town of Præneste in Latium? Apparently the Etruscans in their search for luxury had encouraged the production of such works to a far greater extent than the Greeks.

But in matters of originality we have been taught to look to Greece, and specially to Corinth. It is not

¹ Gerhard's 'Etruskische Spiegel' contains 429 plates, many of which give two or more mirrors, and this number has been largely increased by the supplement to that work now being issued by the German Archæological Institute.

now regarded as a fiction that in the 7th cent. B.C. certain artists who found life in Corinth unbearable from the tyranny of its ruler, emigrated to Etruria and established themselves and their art there. Instead of considering the names of Euc heir and Eugrammos, which tradition assigned to these artists, to be sufficient proof of the fictitiousness of the story, as used to be the case, we now know positively that such names—indicative more or less of the occupations of the men—did exist in early Greece, and having ascertained this we are perhaps apt to go to the other extreme of claiming for Greece a greater artistic influence in Etruria than is her due. Be this as it may, there is no question but that from the end of the 7th cent., all through the 6th, and part of the 5th centuries, B.C., an active intercourse in matters of art was carried on between Greece and Etruria. The contents of Etruscan tombs make this quite clear. Nor can it be doubted that the extensive importation of painted vases, first from Corinth, then from Athens, which is proved by the tombs, had acted on the artistic taste of the Etruscans. On these vases they would find an overwhelming abundance of Greek myth and legend to choose subjects from. On one class of vases which they seem to have liked—the circular kylikes—they would even find the idea of a design disposed within a circular space, while on archaic specimens they would observe a free use of incised lines. So that from these elements lying to their hand, it was not perhaps a very startling piece of originality to take a plain circular mirror of bronze and transfer to one side of it the circular design on a Greek painted kylix. At all events we have the fact to deal with, that a certain proportion

of the Etruscan mirrors have designs of an archaic character going back to about 500 B.C., or even earlier, at which time, so far as we can see, there were no incised mirrors in Greece to serve them as models. We have suggested that these archaic designs were in a general way derived from the painted vases then so freely imported from Greece. But we have also called attention to those early Greek artists who settled in Etruria, and from whom it was to be expected that a strong Hellenic turn would be given to the native art of the Etruscans. What one would look for under such circumstances would be a tendency to lean on Greece for original conceptions, but to follow the native taste in modifying or employing those conceptions to different purposes and on different materials.

If then the designs on the Etruscan mirrors, and the *cistæ* of Præneste, are, with comparatively few exceptions, Greek in subject and conception, we may so far claim them as the product of Greek genius. In some cases the actual drawing approaches very close to the best Greek; but in general there is, even at the best, a harshness and a failure to appreciate the finer beauties of Greek originals. Indeed it is just when the Etruscan drawing is at its best that this defect is the most keenly noticed. But these distinctions are not so easily drawn in the archaic period. As an illustration we may take Fig. 52, a design incised on a bronze cuirass found at Olympia,¹ and consisting of a pair of lions and a pair of bulls, confronted and having between them two smaller groups of sphinxes and lions. From an artistic point of view the presence of these animals side by side with the

¹ Published, 'Bulletin de Corresp. Hellén.,' vii., Pls. 1-3.

group of a citharist and chorus, recalls the almost primitive period in which a once powerful fashion of decoration by figures of lions and bulls was giving way to a newer taste for the human figure and human action as the theme of decoration. That would be



Fig. 52. Incised design on bronze cuirass. From *Olympia*.

about the middle of the 6th cent. B.C. It was the period of the black figure vases, between which and the cuirass there is much in common in the matter of subject, costume and taste, to say nothing of the incised lines that give a character to both. On the

other hand there is in the drawing of the human figures a certain poverty and harshness which cannot be associated with Greek taste at any period. Take for instance the legs of the two male figures in the centre. Such poverty in the sense of form, while it is unlike Greek art, is found again and again in early Etruscan designs on bronze, as for example, on the famous bronze situla of Bologna. A minute examination will reveal other differences in the same direction. So that finally we are hardly left in doubt that the cuirass must

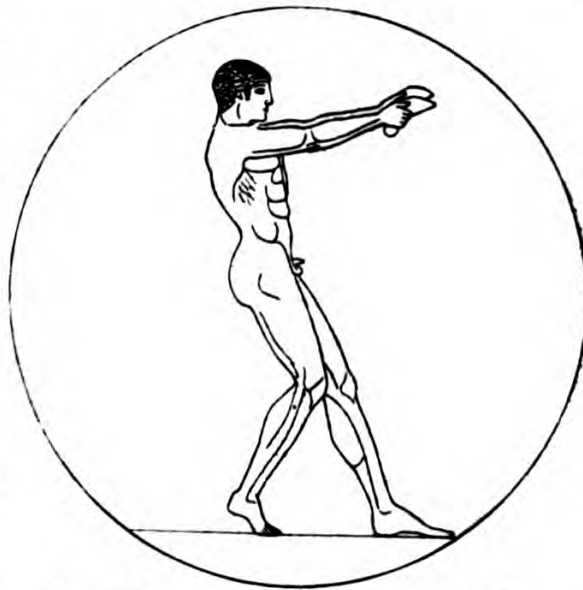


Fig. 53. Incised design on bronze disc.
From Sicily. Brit. Mus. Dia. $8\frac{1}{4}$ in.

have been either part of a trophy set up at Olympia to commemorate a battle gained over the Etruscans, like the trophy set up by Hiero I. of Syracuse, the helmet of which is now in the British Museum, in which case the cuirass would be of Etruscan workmanship, or a dedication sent to Olympia by some Etruscan ruler, like the throne presented by Arimnes (Aruns ?), who was the first barbarian to make a gift to the god of Olympia.¹

¹ Pausanias, v. 12, 3, *θρόνος ἐστὶν Ἀριμνήστου τοῦ βασιλεύσαντος ἐν Τυρσηνοῖς ὃς πρῶτος βαρβάρων ἀναθήματι τὸν ἐν Ὀλυμπίᾳ Δία ἐδωρήσατο*. The Moscow and Paris MSS. read *Ἀρίμνης τοῦ*, says Deecke in his edition of Müller's 'Etrusker,' i. p. 342. I have suggested Aruns.

As an instance of undoubtedly Greek drawing of the archaic period (about 500 B.C.), we give here (Fig. 53) a bronze disc in the British Museum,¹ with incised design of an athlete exercising with the halteres; on the other side of the disk is an athlete



Fig. 54. Bronze mirror-case, incised design, Aphrodite and Pan. From *Corinth*. British Museum. Dia. $7\frac{1}{4}$ in.

exercising with the spear. In comparison with these figures we may set an undoubtedly Etruscan design incised on a thin bronze plate found in the Tiber, not far from Rome, now in the British Museum. These two specimens represent contemporary work-

¹ *Gaz. Arch.* 1875, pl. 35.

manship, and present an instructive comparison illustrative of the points of difference, which though small in themselves, yet cumulatively form a strong contrast in the matter of style.

These instances may serve for the archaic age. We can now proceed to the period after 400 B.C., when this art of incising on bronze was at its best both in Greece and in Etruria. Fig. 54 is incised on the inner side of a bronze mirror-case found in Corinth, and lately acquired by the British Museum. The subject appears to be Aphroditè playing at the game of fivestones (*pentelithi*) with Pan. At first sight one is tempted to think that instead of Aphroditè, we may here have one of those nymphs whom Pan loved to meet by fountains, or on the hills. A nymph would naturally enough play at this game with Pan, and the small Eros at her side might very well look on. Besides, the attitude of this figure reminds us of those statues of nymphs playing at knucklebones, which are generally called *Astragalizusæ*. On the other hand a nymph would have no right to assume so conspicuous a place in the design as does this figure by her size and position in comparison with Pan. Her head-dress, though not exclusively worn by Aphroditè, is yet such as is very frequently seen on her. The swan in the foreground was a characteristic symbol of Aphroditè. Eros could appear at the side of many others, but it was at the side of Aphroditè that he was most at home. Pan also was a friend of hers beyond all doubt.

So far the characters on our mirror answer well to these three, Aphroditè, Pan, and Eros. The difficulty is to understand the condescension of the goddess in playing at this game with Pan. We must remember.

however, that the game of knucklebones is peculiarly associated with Aphroditè in the incident related by Lucian,¹ of a youth who was in love with her statue in Knidos, the famous statue by Praxiteles, and who endeavoured to divine her inclinations towards him by a throw of the knucklebones that lay on the sacred table in the temple. In ordinary practice among the Greeks the highest throw of the knucklebones was named "Aphroditè." This, no doubt, is still far from her actually playing at a similar game with Pan, of which, indeed, there appears to be no other proof. But there is evidence of her being associated with Pan and Eros in a contest in which she takes the part of a very interested spectator. On a small terra-cotta vase with design in relief in the Berlin Museum,² we see Aphroditè in figure, costume, and attitude much the same as on our bronze. She is seated, and holds up her hand to stop the wrestling in which Pan and Eros are engaged before her. Again, on a Pompeian fresco,³ Aphroditè stands looking on while Pan, in form and aspect the same as on our bronze, wrestles with Eros. Below the group is written an epigram in verse, which tells how Aphroditè looks on anxious as to which shall win.

¹ Amor. 16. This was the same youth who in his passion cut the name of Aphroditè (Ἀφροδίτη καλή) on every wall and on the bark of every tree in his way. It appears to have been usual to have astragali in temples for the purpose of divination, see Schol. ad Pind. 'Pyth.,' iv. 337.

² Engraved, 'Jahrbuch,' 1889, p. 129.

³ 'Mon. dell' Inst. Arch.,' x. Pl. 35; 'Annali,' 1876, p. 297, where the epigram is restored as follows—

Ὁ θρασὺς ἀνθέστακεν Ἔρωσ τῷ Πανὶ παλαίων
 καὶ Κύπρις ᾠδίνει τίς τίνα πρῶτος εἰεῖ.
 "ἰσχυρὸς μὲν ὁ Πάν καὶ καρτερός. ἀλλὰ πανούργος
 ὁ πτανὸς καὶ Ἔρωσ. οἴχεται ἅ δύναμις."

“Pan is wonderful and strong,” she says, “but winged Eros can work in many ways. Mere force must yield.”

But apart from these questions as to the absolute identity of the various persons on our bronze, there can be no doubt that the idea of the artist was to present us with a central figure of singular grace and beauty. The rudest force of nature is drawn to her in the person of Pan; the god of love attends her. It may be that these two, Pan and Eros, will struggle and wrestle for her approval. Meantime the scene is peaceful, and the beauty of the central figure is the ruling idea. The drawing is splendid. The attitude, though perfectly natural, is such as to bring out the large noble form, while the fine simplicity of the drapery affords a lovely contrast to the nude body and arms.

The time in which the artist of our bronze lived (after 400 B.C.), was a time when symbols and personification occupied much of men's minds. Nature was full of voices that spoke to man, as Nymphs, Naiads or Graces, as Pan or Satyrs. Similarly the passions of mankind seemed to the onlooker to act as if they were special powers, special entities, individual beings whom you could almost recognise, whom the poets even named. Among human passions love was the readiest to be recognised and to take the form of an actual being, an Eros, such as we see him on the bronze, close to the nymph. He is merely her guiding passion for the moment. Artists and poets imagined that such passion must be a power outside the human frame. They imagined a being wholly and absolutely filled and permeated with this power, having an independent existence, a personality, which they thought must be youthful and must have wings.

Do not let us, however, suppose that the Greeks always thought in this manner. A study of Eros, as he appears in literature and art, will show that the facts are far otherwise. In early art figures of Eros are conspicuously absent. Personifications of fate, of sleep and death, you may find, but not Eros. One of the earliest instances was from the hand of Pheidias, when he sculptured the base of his statue of Zeus at Olympia, and it is pleasant to think that this great artist had here as elsewhere foreseen and helped forward that recognition of the affections which in the following ages played so prominent a part. By the time of Scopas and Praxiteles Eros had, so to speak, found his wings. On the painted vases as in sculpture, he was thenceforth more and more common. So also in poetic literature; Æschylus, the oldest of the three great dramatists, knew well the stormy depths of human passion, he knew love as a passion, but not as a personal god. Sophocles came next, and made for ever memorable the love of Antigone for her kith and kin, the love of Deianira for her husband, the affection of brother and sister, the devoted attachment of a Pylades to an Orestes. Sophocles does indeed recognise the personality of Eros on one or two occasions, but that is all. It is only when we reach Euripides that the god is seen to be in full force, just as in the contemporary art. This legacy of a personified love together with a general spirit of personification and symbolism was next passed on to Theocritus and the Bucolic poets, to Apelles and his contemporary artists. Poets and artists alike made the most of the gift, and thus it happened that towards the end of the 4th cent. B.C. the air was, so to speak, full of conceptions like that of our bronze.

We may now take for comparison an example of Etruscan work of this kind, first remarking that it occurs on a bronze mirror, not a mirror-case, lately acquired by the British Museum. Incised designs



Fig. 55. Bronze mirror, Etruscan, incised design. Perseus preparing to cut off the head of Medusa. British Museum.
Dia. $6\frac{3}{8}$ in.

though found in several instances on Greek mirror-cases have not yet been found on any Greek mirror, though they are of great profusion on the mirrors of the Etruscans.

The subject is one which very naturally commended itself for a mirror. It is in fact an illustration of the fatal uses to which a mirror may be put, or if not actually a mirror, a bronze shield or other reflecting surface. It is the story of Perseus and how he cut off the head of the Gorgon Medusa, which he could not have done but for the aid of the goddess Athena, whose glittering shield showed him the reflection of Medusa's face, and thus guided him to her whereabouts without his being seen by her—the sight of Medusa's face would necessarily have turned him to stone. The persons on the mirror are Perseus on the left, Athena in the centre, and Hermes on the right. Perseus is looking downwards at a reflection of the face of Medusa near his feet, and from the action of his hand he seems eager to cut off her head. But somehow the Etruscan artist has got mixed in his version of the story. The reflection he shows us is produced in a pool of water, not on the shield of Athena. That goddess in fact appears to hold up in her hand the head of Medusa already cut off, and from it comes the reflection in the pool. If we compare the mirrors in Gerhard's work, having this same subject of Perseus and Medusa we shall find this mistake is not uncommon, if it is a mistake and not rather some version of the story of Perseus and Medusa with which we are imperfectly acquainted.

One such version was current in Samos, where there was a place on which it was said that Athena had made a sketch of the face of Medusa to teach Perseus what it was like, while the two were rehearsing the steps to be taken on so perilous an expedition. Apparently there had been, close to the town of Samos, a spot of ground, having a configuration not unlike the face of Medusa.

Hence the notion of a rehearsal. This notion having once got a hold of local belief, might easily be carried so far as to say that Athena had actually made a Medusa's head in terra-cotta or some other substance, and had trained Perseus to his task by holding it up and showing him the reversed reflection of it in a pool. In favour of this view it may be said that the head which she holds aloft on our mirror, is more like an imitation than the real Medusa's head. For instance, there is a stump below the neck which is suggestive of sculpture but not of reality. These things considered, we ought perhaps to conclude that the Etruscan engravers of these Perseus mirrors were well acquainted with versions of the story which we only know in a fragmentary way.

On one mirror (Gerhard, v. Pl. 66), we have an earlier stage of the adventure, where two finely-characterised old women, the Graiæ as they were called, offer to lend Perseus the one eye which they possessed, to help him to see the Gorgon; Athena is also present. On another (Gerhard, v. Pl. 67), Medusa sits on a rock fast asleep, while Perseus, followed by Athena, advances upon her stealthily. Again (Gerhard, v. Pl. 68), we see Perseus making off in haste, having got the head of Medusa safely in his wallet. He is pursued by the marine deity Phorkys, trident in hand, but Athena intervenes and pushes back Phorkys with her aegis. On the other mirrors (Gerhard, Pls. 123, 124; v. Pls. 12, 13, 69, 70), the rendering of the story is much the same as on ours.

The design on our mirror (Fig. 55) is enclosed within a border of ivy leaves, which, though a simple enough matter in itself, is yet unlike anything we have to show in Greek art. Not that we have not ivy patterns

at all stages of Greek art; but it is only in exceptional cases that the ivy is rendered as here. Usually it is much less true to nature. Apparently there was not among the Greeks a general love for truth to nature in the plant-forms which they employed for decoration. The Etruscans were more exact in some respects; on one archaic mirror (Gerhard, Pl. 421) is a border composed of intertwined tendrils of ivy and vine, the leaf of each being accurately drawn. In another of similarly archaic style (Gerhard, Pl. 292) we see a group of two figures standing face to face; behind each rises a vine which bends round, following the circular shape of the mirror, and thus seeming to suggest that from some such beginning the idea of a circular border of vine or ivy leaves had taken its origin. On a third mirror (Gerhard, Pl. 313) we have the curious phenomenon that the vine border enters prominently into the composition, which consists of two satyrs and a nymph busily employed in getting grapes from the border of vine. That is surely an error from an artistic point of view, yet it betrays the sense of realism in the matter of vine and ivy borders of which we have been speaking. Compared with other patterns, these are the most frequent on Etruscan mirrors.

In decorating a circular space it was often difficult to find a subject which could be so planned and disposed as to cover the whole of the surface. To the ancients, who had a horror of vacant spaces, this was a fertile source of ingenuity. One simple way, however, of solving part of the problem suggested itself to them even in early times. They cut off a segment of the circle by a straight line at right angles to the handle of the mirror. This straight line formed the

ground on which their figures were to stand, while the segment beneath—technically known as the *exergue*—was reserved for a minor species of decoration. The idea would be familiar enough from the interiors of early Greek kylikes or circular shallow drinking-cups. On an archaic mirror, already mentioned as exhibiting what appears to be the origin of the vine border, the segment cut off is not below the figures, but above them. Evidently the artist—and he was a very delicate draughtsman—was in search of a means of his own to square the circle.

On Etruscan mirrors, especially after 400 B.C., it was a fairly common practice to inscribe the names of the persons represented, a practice which though it does not improve the design, has yet been very useful to archæologists. On the painted Greek vases we are often deeply indebted to a similar source of information. The Greeks in the early ages of their art, when its principal function was to give a sort of narrative representation of the national myths and legends, found it useful if not necessary to append the names of the personages. The habit descended among the vase painters, till long after it had been abandoned in the higher walks of art. It may seem hard on the Etruscans to say that in so simple and natural a matter they had simply borrowed from the Greeks. But the fact is that by far the greater part of the subjects on the mirrors are taken boldly from Greek myth or legend, and if the Etruscans thus helped themselves to subjects, it is no hardship to suggest that they had taken also the names. On one thing, however, they insisted, and that was on writing the Greek names according to their own Etruscan fashion,

which frequently is not a little curious and even difficult to understand.

We come now to the subject of bronze *cistæ* with incised designs, and first it should be observed that bronze *cistæ* of this kind have, with a very few exceptions, been found only at Præneste (Palestrina). This fact has given occasion to much conjecture. At one time these *cistæ* were thought to have been used in mystic rites. The phrase '*cista mystica*' became current, and even Gerhard adopted it, though recognising from the contents of the *cistæ*, that they must have been used for the bath and for toilet purposes.¹ We possess in the British Museum the contents of one, and they are plainly just such articles as were useful for the toilet and bath. But Praeneste had been famous for its temple of Fortune and its oracle. The finding of so many *cistæ* there and so very few elsewhere, the apparent resemblance of shape between the bronze *cistæ* and those *cistæ* of wickerwork which were used in the Bacchic mysteries, the prominence of the Bacchic mysteries in Italy, these were circumstances which largely predisposed archæologists to associate some undefined, unknown, mystic character with the *cistæ*. However, with the recovery of fresh specimens from time to time that view has been set aside. At present they are regarded simply as articles of the toilet.

The number of *cistæ* is now nearly eighty. Of these only a small proportion are enriched with designs of any consequence. The most famous and

¹ See Schoene, in '*Annali dell' Inst.*,' 1886, pp. 150-209, and 1868, p. 413, where he reckons as many as seventy-five *cistæ*. For engravings, see '*Mon. dell' Inst.*,' viii., Pls. 7-8, Pls. 29-31; ix. Pls. 24-25; '*Annali*,' 1870, p. 344; 1864, p. 356.

still the most beautiful is the one at Rome in the Collegio Romano, known as the Ficoroni cista,¹ so named from Ficoroni, a dealer in antiquities who became possessed of it. It was found near Præneste in 1744. The design incised on it is an illustration of the Argonautic expedition, which it is interesting to look on when reading the Idyll of Theocritus on the same subject. But apart from the excellent drawing and composition, this cista has an attraction in the inscription on the lid, which records that it was made in Rome by one Novios Plautios. The form of the inscription (Novios Plautios me fecid)² makes it clear that this artist had lived towards the end of the 3rd cent. B.C. In no other instance have we the name of an artist on a cista.

There is one other cista, in the British Museum, of a beauty not inferior to the Ficoroni specimen. A drawing of it has, however, been published, and here it will be sufficient to refer to that publication (Raoul Rochette, 'Mon. Inéd.,' Pl. 58). The subject is the sacrifice of Trojan prisoners at the funeral pyre of Patroclos. The drawing is excellent, the types of the figures noble, and the desire of the artist to enliven his composition by bold perspective in the attitudes, conspicuous. We should mention also his efforts at shading to give roundness to the forms, because such efforts, as we know from the painted vases, where they would have been equally applicable, were rare among the Greeks.

¹ Jahn, 'Ficoronisch. Cista.' Engraved, Brönsted, *Ficoron. Cista* (1847) and Müller, *Denkmäler*, Pl. 61, No. 309. It had been supposed that the name of the artist might apply only to the lid of the cista on which it was incised. But Jahn, with Gerhard, rightly dismisses this narrow view.

² 'C. I. L.' i. p. 25.



Fig. 56. Bronze cista. British Museum.

Of the two cistæ which we here take as examples the one (Fig. 56) combines two separate scenes. Near the centre is a group of two combatants with a winged figure intervening. We have here the scene in the *Iliad*, (iii. 355 fol.), where Paris and Menelaos encounter each other. It was a memorable scene, because the lot had been cast for Paris to take up arms against the very man whom he had wronged. When he and Menelaos stood both ready for the fight, the Greek and Trojan camps looked on anxiously. At the first round Menelaos made a thrust with his spear, but Paris swerved and the blow passed. Then Menelaos drew his sword and smote Paris on the head, but his helmet turned the stroke and broke the sword of his opponent, whereupon Menelaos in wild fury

rushed on Paris and would have strangled him quite had not the goddess Aphroditè appeared in time. On the left is Paris, recognisable by his Phrygian cap: on the right Menelaos. In such extremes the Homeric deities had at hand the simple resource of throwing a cloud or mist round the person they wished to protect, rendering him invisible to the foe. Aphroditè cast a mist over the body of Paris, and thus saved him from the Greeks. The scene is easy to realise, even now, so far as the thick impenetrableness of a mist is concerned, and doubtless the poet in using this image of divine power appealed to a familiar experience of the Greeks of his day. In poetic language, it was possible to call up such a scene. But what would be the position of an artist in the face of such a subject? Mists do not come or go at his bidding. He would have to find some other means. On our *cistæ* he has chosen to intensify the personal intervention of Aphroditè. While the combatants are still apparently fighting he makes the goddess rush in with sword in hand to keep back Menelaos and thus to cover the retreat of Paris, to render him invisible. In another place of the *Iliad* (v. 290 fol.) is an encounter between Æneas and Diomedes, which in some respects also answers to the scene on this *cista*. Here again we have Aphroditè interfering to save from spoliation her Trojan friend Æneas, but with this result that the Greek hero Diomedes rushes at her and actually wounds her till the divine blood flows. "Then flowed the goddess's immortal blood, such ichor as floweth in the blessed gods; for they eat no bread and neither drink they flowing wine, wherefore they are bloodless and are named immortals." In ordinary cases of divine intervention the deity was invisible as a matter

of course; but in this case Athena, who was on the side of the Greeks, had prepared Diomedes for the possible interference of Aphroditè; so that he knew well enough what he was doing when he launched his spear at her. However, the wound was not serious. I do not think that this can be the scene on our cista, because Paris is too clearly indicated in the drawing by his Phrygian cap, and because Aphroditè would hardly have been represented as having her own way so completely if the upshot had been that she was wounded. We had better therefore keep to our first explanation, that the combat is that of Paris and Menelaos. As regards the figure of the goddess, we should point out that the Greeks did not give Aphroditè wings, however invisible they might believe her to be; nor did they think of her as armed with a sword. To the Etruscan artists, however, wings were naturally associated with deities; for some reason the Oriental instinct for winged invisible beings had a powerful hold on them, and in this respect therefore the group on the cista is thoroughly Etruscan in its conception. We are speaking, it is true, of a time when the Etruscans had ceased to exist as a nation, when they had become part of the Roman empire, and had in artistic matters plunged into the stream of late Greek art, which then inundated Italy. Greek literature, especially poetic literature, was in the hands of everyone, and illustrations of it were much in demand, most of all, illustrations of the Iliad and the poets of the Epic Cycle, as they are called; that is, the poets who in later times composed long epic poems to fill in the events which preceded, and which followed the actual war of Troy. But notwithstanding all this influence the Etruscans never were

quite able to shake off their original instinct for winged figures.

One of the poems of the Epic Cycle was known as the *Æthiopis*, by Arctinos of Miletus. It treated of the career of Achilles, onward from the point of time at which the *Iliad* closes. All we possess of it, however, is the series of fragments that have been handed down by the grammarian Proclus, and others, together with some ancient illustrations of it on stone. One of the prominent scenes occurred when the Amazons, led by Penthesilea, came to the succour of the Trojans, immediately after the death of Hector, which closes the *Iliad*. A battle ensued and Achilles slew the Amazon Penthesilea, as he was bound to do, they being the two leaders; but his heart smote him for the death of so fair a foe. This is then the second scene on our cista (Fig. 56). Suppose the two ends of our drawing to be joined; it will then be seen that the scene is shut in at both extremes by a mounted Amazon; not a moment's doubt is left that we have before us a battle of Greeks and Amazons on the Trojan plain. We are familiar with such contests in Greek sculpture, so much so, that they pass before our eyes only as exhibitions of artistic skill. But, pray remember that to the ancient spectator it was otherwise. It was a struggle of western civilization and skill against the natural forces of the East and of barbarism.

On our cista Achilles stands over the prostrate body of Penthesilea, and then occurs the hateful incident when Thersites, true to his base character in Homer, flouts Achilles for an unworthy love towards the Amazon, and advances with his spear raised to plunge it into her eyes. Thereupon Achilles took him by the

hair of the head and felled him. In the *Iliad* (ii. 216) we have a description of the personal appearance of Thersites; he squinted, was lame of one foot, hump-backed, narrow-chested, his head tapered to a point and was nearly bald; above all he was detested by Achilles and Odysseus. In ancient art, on vases, gems, and marble sarcophagi we have numerous illustrations of the death of Penthesilea, and occasionally we have representations of the slaying of Thersites; but I am not aware of any other instance, except that of our cista where Thersites appears in the act of striking at the Amazon. It would be difficult to recognise him from the description in the *Iliad*. He has none of the repulsiveness of aspect there assigned him. Indeed I had not thought of him in connection with this figure till Prof. Jebb reminded me of it when we were together looking at the cista.¹

Let us now examine the design incised on the second cista (Fig. 57). The subject is difficult to explain, and possibly there is not much ground for confidence in the interpretation which we are going to propose. It is the best, however, that has as yet occurred to me. But first let me state that an alternative explanation has been suggested. It has been thought that the scene might represent the race of Atalanta and Melanion, he being the figure whom we see running with apples, apparently, in his hands, ready to be strewn along the path to delay Atalanta, who follows in hot haste with sword in hand, and woe be to Melanion if she overtake him. As far as this particular group is concerned

¹ See Jahn's 'Gr. Bilderchroniken,' pp. 27, 67, and 111, who gives the ancient illustrations of the Æthiopis, but they pass from the slaying of Penthesilea to the slaying of Thersites, without the intermediate scene.

there is not much to be said against the explanation, except that Atalanta has too much the aspect of a fury instead of a respectable young lady who excelled in speed of foot, and who was only to be won by a suitor who could run even faster, or otherwise get the better of her in a race. Besides, there is no apparent connection between Atalanta's race and the other figures on our cista. Of course we are not bound to find an absolute connection between them. There might be, as on the other cista, two or even more quite distinct scenes.

Among these other figures there are some that are beyond question. The nude goddess, near the right, is obviously Aphroditè; though she is not winged as on the last cista; behind her stands Athena, recognisable in armour and attitude. Now in dealing with ancient works of art it is safe to suspect when we see a nude Aphroditè with an armed Athena behind her, that we have to do with the mythical incident when the goddesses Aphroditè, Athena and Hera were conducted by Hermes to Mt. Ida to be judged of their beauty by Paris, on which occasion Aphroditè won the prize. We ought therefore to have a third goddess, Hera, on the cista—no less indispensable is Paris; not absolutely necessary, but nearly so, is Hermes, while the presence of a figure of Victory would satisfactorily indicate the contest of the goddesses and the award. Thus, to adequately represent the judgment of Paris we need six figures, viz.: the three goddesses, Paris, Hermes, and Victory. There should not perhaps be more, and there cannot well be fewer.

Returning now to the cista, we have identified Aphroditè, and next to her, Athena. Aphroditè is looking forward and inviting criticism. Athena looks



Fig. 57. Bronze cista. British Museum.

round, as if waiting the approach of some one. Behind Athena is a figure of Eros holding diadems for the winner, and thus acting as a substitute for Victory. Then follows a group of a goddess who answers very well to Hera and a youthful male figure with apples in his hand. If we are right as to the general drift of the representation, this youthful, hastening figure must be Hermes, though we must admit it to be singular that he has none of the ordinary attributes of that god, the caduceus, or the winged cap. He holds an apple in each hand, whereas there was only one apple so far as we hear. The diminutive figure holding an axe might in ordinary circumstances pass for the god Hephæstos. He was present at the marriage feast, if we may infer this from the fact that he helped Athena to fashion into a spear-shaft the branch which Chiron had brought, that spear-shaft which Peleus and after him Achilles used with good

effect. ('Epic. Gr. Fragm.,' i. p. 22, ed. Kinkel.) Besides, Hephæstos, as the son of Hera, would naturally enough attend with the other deities. For all we know to the contrary, it may have been he who made the golden apple, inscribed "to the most beautiful." But as the presence of Prometheus is specially mentioned by Catullus, we may equally well give that name to this sturdy workman with axe in hand. The wild female figure with streaming hair and sword in hand, rushing onwards, is an admirable rendering of Eris or the spirit of discord.

Before going further with this interpretation it should be stated, on the authority of Apuleius, that he



Fig. 58. Border of cista Fig. 57.

had seen acted at Corinth, a sort of pantomime or burlesque of the judgment of Paris. We may, therefore, be prepared for the possibility of a burlesque element in our design. There can be no question that the next group on the cista is of this character. It is quite of the low comedy style, and to come to our special point, it is suggestive of the shepherd's life on Mt. Ida. Suppose the news has just reached Paris and his fellow shepherd-boys on the hillside that the three great goddesses had come to get his judgment as to their beauty, we can imagine the rustic grin which a poet of the low comedy would put on his face and the looks of incredulity which his companions would assume.

What we have on the cista is a group of figures shut

in by two massive Ionic columns. One would suppose that these columns must indicate a temple; yet the figures between them stand on rocky ground. The figure on the right is an old man leaning on a staff, very much like a study from an old man on the east frieze of the Parthenon. From the action of his hand he is evidently concerned with what is going on further to the right. He ought to be Zeus, if our interpretation is right, and in fact he is not unlike Zeus, though he wants the thunderbolt, the eagle and the sceptre. He ought to have had one or other of these symbols. We are certainly in a difficulty as to this figure. But that is nothing to the difficulty which besets the group behind him. Can this young man putting off or on his cloak be Paris? He has the ears of a satyr and surely that was far from fitting to Paris. Yet the figure cannot be a satyr. The huntsman's boots and the cloak which he wears are conclusive against that. He must therefore be a mortal of some kind. The boy with the dog peering round the column looks like a shepherd-boy, and possibly also the young man who stands behind grinning is another shepherd. If then the central figure is actually Paris, we must suppose him to be surprised at the approach of the goddesses, and to be in the act of arraying himself for the extraordinary occasion which had arrived. The scene is obviously a burlesque of some myth or legend, and notwithstanding the difficulties of identification just mentioned we cannot conceive any more likely explanation than the judgment of Paris.

As regards the two Ionic columns, it should be noticed that one of them has its uppermost drum, or perhaps only its necking, sculptured with a scene of

combat, recalling in a measure the sculptured drums of the columns from the temple of Diana at Ephesus. The other column is merely enriched with the honey-suckle pattern familiar on the necking of Ionic columns. Behind Hermes, or whoever he is that runs with the apple in each hand, is a monument surmounted by a lion and gryphon. What connection it has with the scene is not apparent. But we see from the irregular treatment of the two Ionic columns that the artist could not have followed strictly a Greek model. He had not the instincts of a rigorous exactness which characterized the Greek, and this observation prepares us in some measure for difficulties of interpretation which would have been absent in a purely Greek design.

CHAPTER V.

ENGRAVED GEMS.

καὶ τῶνδ' ἀποίσεις σῆμ' ὃ κείνος εὐμαθὲς
σφραγίδος ἔρκει τῶδ' ἐπὸν μαθήσεται.

SOPH., *Trach.*, v. 605.

IN following up the history of gem engraving we make, as with the vases, a fresh start about 600 B.C. At this date and for some time after it, the introduction of coinage and of writing, had apparently interfered largely with the production of gems in Greece. They were no longer needed as seals to any great extent. Their chief use was as personal ornaments. The Greeks of the 6th cent. B.C. were undoubtedly fond of anything that could add to personal attraction. Graceful appearance was a passion with them. But their means were limited. On the other hand the Etruscans were rich, given to show, and ready to import from Greece every product of luxury. They imported gems along with archaic vases and they speedily acquired the art of engraving gems for themselves.

As regards the technical process by which gems were executed, we read in Herodotus (vii. 69) that among the Æthiopians in the army of Xerxes were some who had their arrows tipped not with iron, but with a sharp stone with which they also engraved

gems, apparently those gems which they employed as coins, and to which reference has already been made. Many of the lenticular and glandular gems of which we have spoken (p. 41), are of steatite, which is easily engraved with obsidian, a material which has been found fashioned as knives and otherwise in the oldest tombs in the Greek islands. In general, however, it will be seen that even on the steatite gems an instrument consisting of a minute metal disc with a sharp edge, and worked by a drill, had been employed to sink the deeper parts of the design. An instrument of this kind would answer to Pliny's *ferrum retusum* and his *fervor terebrarum* (xxxvii. 76). Such an instrument seems to have been known from the earliest time, and to have become necessary in the working of the harder stones, such as rock-crystal, carnelian, jasper and hæmatite, and the evidence of it is easily to be recognised on these gems by the numerous small cup-like sinkings, which in the ruder specimens are left much as they were at first made, while in the finer specimens they are finished off in keeping with the general design. This will be noticed most frequently in the heads, feet, and legs of animals. Larger discs were used where larger spaces had to be hollowed out, as for instance the fore and hind-quarters of a bull. These sinkings were then connected by graving-tools fitted with diamond points, and worked by a drill with a forward and backward movement. These were the *crustæ* of diamonds, and the fragments of *ostracitis*, of which Pliny speaks (xxxvii. 15 and 65). For the harder sorts of stones a powder, apparently much the same as the emery powder now in use, *smyris*,¹ was

¹ *σμίρις*. Hesychius, s.v. *σμίρις*. ἄμμου εἶδος ἣ σμήχονται οἱ σκληροὶ τῶν λίθων.

mixed with oil and employed to charge the tools. It seems to be this that Pliny (xxxvii. 32) refers to as *Naxium*.

It has already been suggested (p. 49) that gems engraved in the form of beetles or scarabs may have had their origin in Egypt. Thence the scarab found its way into Greece and Etruria, partly through the commerce of the Phœnicians, and partly under the influence of Greek residents in Egypt during the 6th cent. B.C., or nearly so. Apparently Cyprus, with its mixed population of Greeks and Phœnicians, had formed a sort of stepping-stone. Cyprus has yielded a considerable number of scarabs of the date just mentioned. High among them must rank one in the British Museum, (Pl. XII., Fig. 10), representing Athena in her character of Gorgon slayer. Behind her neck is seen the face of the Gorgon in profile; lower down the serpents and wings of the Gorgon, while behind her feet fall three drops of the Gorgon's blood (Euripides, 'Ion,' 1003). In her right hand appears to be the solitary eye of the Graiæ which played so important a part in the slaying of Medusa.

Gems so peculiar as the scarabs in shape, and in the designs engraved on them, appear to have had little permanent attraction for the Greeks, if we may judge from the scarcity of specimens as yet found on Greek soil. The Etruscans, on the other hand, may be said to have had a passion for gems of this form, so large is the number of them found in Etruria, and now in public collections, not to speak of private cabinets.

At the same time it is to be remembered that whatever their success may have been in gem-engraving, the Etruscans remained always indebted to

the Greeks for their subjects, for the proportions of the human figure which they employed, and for their manner of rendering the figure. The subjects, as has been said, are taken from the legends of Greek heroes, very rarely from myths of the gods. Pythagoras, the philosopher, who was a contemporary of these gem-engravers, and himself the son of a gem-engraver, forbade his followers to wear the image of a god on their rings. But whether or not there was any general feeling of reverence in the matter, the fact remains that deities are very scarce on the scarabs.

The proportions of the figure show a short body with long legs, precisely such as may be seen in the sculptures from Ægina in Munich, the Harpy tomb in the British Museum, or the metopes of Selinus in Palermo. The costume is equally Greek of the date of these sculptures. The figures are represented in profile and constantly engaged in action. The workmanship is laboriously minute, the contours of a design being cut sharply down, and the relief, as seen in an impression, kept flat within the contours. All these characteristics will be found combined in Greek sculpture of the end of the 6th cent. B.C., and the early part of the 5th. This, then, is the date to which the beginning of scarab-engraving in Etruria may be assigned. Why its beginning was marked by so much excellence of detail is explained by the circumstance that just then Greek sculpture had attained perfection in the minuteness and refinement of archaism.

Among the early scarabs and scaraboids found in Etruscan tombs it is sometimes difficult to say whether they may not have been imported from Greece. A scarab of black jasper found in the Troad, and now in

Berlin, has the inscription ΣΗΜΟΝΟΣ in archaic Greek. Without this inscription, and without a knowledge of its provenance this gem would ordinarily rank as Etruscan. This alone, were there no other instances to the same effect, would be a warning to leave the question open as to how far the Greeks actually produced gems of the scarab form in archaic times.

It will be noticed in following the history of the scarabs, that there is a gradual tendency to relax minuteness of detail in the human figure, to make up for it by indicating forcibly the bones as seen at the knees, elbows, ankles, with other prominent points in the anatomy; to prefer male figures as nude as possible in contrast to the earlier stage where draped female figures gave frequent scope for finish of detail; to become content with a more or less general indication of the figure within its contours, and finally to reverse the proportions so as to show comparatively a long torso with short legs, such as is believed to have been a characteristic of the sculptor Polycleitos. The changes here indicated may be supposed to have taken place within the period of a century.

The best and most carefully engraved scarabs have been found, so far as is known from the comparatively few records that have been kept, in tombs accompanied by vases of the black figure and early red figure styles, that is to say, vases ranging from the dates about B.C. 500 to B.C. 440. Where scarabs have been found with vases of the later and free red figure style, it is noticeable that they are rude in execution, and may be as late as the beginning of the 3rd cent. B.C. Yet these rude and unquestionably late scarabs retain in general the same class of subjects: figures

of heroes, centaurs, and such like, which the early engravers had made familiar.

At present we can only go so far as to say that the Greeks had little taste for the scarab form of gem, and that is just what would be expected of them. In the first place the constancy of one particular form which satisfied the Etruscan engravers was itself a species of tyranny. Then the shape of a beetle could not well be enlarged or varied in size as an artist might wish. There was a realism about it which demanded actual size in the imitations of it. The beetle had no sanctity in the eyes of the Greeks as it had among the Egyptians. There were in fact plenty of reasons for their rejection of the beetle or scarab form; but perhaps the chief reason was the very confined area which it presented for an engraved design. That suited the Etruscans very well with their love of minute careful workmanship. The difference between them and the Greeks in this matter of workmanship may be seen by comparing their goldsmith's work. The Etruscan goldsmith produces a mæander by means of innumerable small globules of gold soldered down with infinite pains so as to form the pattern. The Greek takes a fine thread of gold and produces the pattern in a moment. We do not say that the Greeks were not also minutely painstaking at an early stage of their course; but they found afterwards that it is a better principle to spare the labour of your hands than the labour of your brains.

As regards gem-engraving they certainly demanded more elbow-room than the Etruscans or Egyptians, and accordingly instead of the scarab form they chose what is now commonly called the scaraboid, *i.e.* a gem which presents an oblong surface for engraving, much

like an Egyptian cartouche, or the base of a large scarab, but is quite plain at the back, with no trace of the beetle left. We stick pins through our beetles vertically: the ancients stuck them horizontally, and thus obtained a swivel on which the creature—we are speaking of stone beetles—could be turned round without injury to its appearance. In the scaraboids also this swivel was retained. Somewhere between a scarab and a scaraboid is a gem in the British Museum, (No. 479), on the back of which is a satyr's head in relief, as if in avoidance of the beetle's back on the scarabs. On the face of the gem is a citharist and the name of the engraver: ΔΟΠΙΕΣ ΕΠΟΙΕΣΕ or ΣΥΠΙΕΣ ΕΠΟΙΕΣΕ ('Jahrbuch,' iii. Pl. 8, Fig. 1).

As examples of engraving on scaraboids, such as it was practised from early times down to about 400 B.C., we may take the gems on Pl. XII., Nos. 1-15. No. 1 represents a bull, the artistic type of which carries us almost back to the painted bull found by Dr. Schliemann at Tiryns (Fig. 115), whence it may perhaps be inferred that scaraboids of this class were the immediate descendants of the lenticular gems of the Mycenæ period. No. 2 shows us a lion attacking a bull, the workmanship being far in advance of the last-mentioned gem. The art is already aspiring to largeness of manner and vigour of action. No. 3 gives us again a characteristic of the engraving of the 7th cent. B.C. The subject is the favourite one of a bull. The artistic treatment is full of breadth and vigour, with yet the drawback of insufficient freedom of conception in the details. The artist is still hampered by the traditions of drawing his details of the form of the bull in a conventional manner. He has a love for sweeping



*Intaglio gems - British Museum
 illustrating progress of gem engraving.*

John Murray, Albemarle Street.

decorative lines, whether they are altogether in place or not.

But the finest gem of a date previous to 400 B.C. is a burnt carnelian in the British Museum (Pl. XII., No. 15), representing a youth seated on a rock and playing on a lyre. It is a little archaic in some ways, but altogether has in it a largeness of style which makes one think of this figure as a slightly older type of those young gods seated in the east frieze of the Parthenon, and if our gem is worthy of being associated with those seated figures of the Parthenon frieze, then surely it is a treasure for us to possess. It is a proof that the gem-engraver may at times have been an artist of perfect attainments. In our gem the structure of the body of the youth, the treatment of the drapery round his legs, the manner in which the perspective of the figure is adapted to the necessary lowness of relief, are all points that may afford comparisons with the Parthenon frieze; nor less so is the serene composure with which the youth bends over his instrument, enabling us at once to interpret the music of his lyre. Who then is this youth seated at his lyre? There is no indication of Apollo about him. The alternative would seem to be some motive of ordinary life which the artist has idealized.

But this raises a question which we may stop for a moment to consider. We are familiar with the statue of an athlete in the act of throwing a disc. The statue is usually described as a copy from a work of Myron's. We are accustomed to speak of it as some late ancient writers have taught us to do, as merely the statue of an athlete, a discobolus, and then we proceed to argue that by the time of Myron—he was a contemporary of the engraver of our gem

—sculptors had begun to find attractive motives and opportunities of observation in the games and exercises of athletes going on before their eyes. No doubt the statue in question had been carefully studied from the life, and if this is so, why not call it simply a discobolus, as we have been wont to do? But in the first place, it may be questioned whether it had ever occurred to an artist in those early days, to propose to himself a subject taken direct from ordinary life, unless for the purpose of humour, or perhaps occasionally for portraiture. In the second place, there is in the British Museum (No. 742) an engraved gem, on which we see a discobolus in precisely Myron's attitude, and this gem is inscribed with the name of Hyacinthos. From this name we learn that the disk-thrower on the gem, at least, is not an actual athlete, but the legendary hero Hyacinthos, who was killed in playing at disk-throwing with Apollo, and from whose blood sprang the flower hyacinth. There cannot be much doubt that the true name for Myron's statue also was Hyacinthos. The mere matter of a name may be of no moment; but by recognising this as the right name we are able to perceive the manner in which Myron's mind worked. With his habit of observing nature he had been caught with the beauty of the attitude of the disk-thrower at the instant when he is going to hurl forth the disk. He next looked round among the known legends of heroes for a subject which would allow him to use this attractive motive. Or, if you like, you may suppose him to have been first captivated by the legend of Hyacinthos, and to have next gone to watch athletes exercising; in either case the combination of legend and reality in his mind would compel him to idealize the form of his athlete,

and thus produce the statue with which we are familiar in ancient copies. In doing so he would have this advantage also, that the educated taste of the time would at once recognise the legendary hero, whereas the statue of a mere athlete could only be locally recognisable, and would be regarded generally as more or less of an impertinence to the public taste. It is not inferred that this argument would necessarily apply to our gem, of a youth playing on the lyre because the gem was not made to appeal to public taste, but still it is possible that the youth was a figure known to ancient legend.

To be compared with this gem is a larger and more striking scaraboid in rock crystal,¹ representing the same subject, which also comes from Greece. It is certainly more ambitious, and illustrates a more advanced stage of art. Still more advanced in one sense, because truer to the observation of natural attitudes in playing on this peculiar shape of lyre, known as the *magadis*, is a gem in the Fitzwilliam Museum at Cambridge. The attitude of the player exhibits more of a abandonment to the theme than in the other two gems. But still the forms retain much of the severity of the older manner. Indeed the whole engraving of this gem announces an artistic desire to combine the severe forms of a still slightly archaic time with the rising sentiment of realism.

Towards the beginning of the 4th cent. B.C., the engraving of scaraboids in Greece is admirably represented by the work of Dexamenos of Chios, as

¹ It is engraved in Brøndsted's 'Voyage en Grèce,' ii., vignette. Cf. ii. p. 277. Brøndsted obtained it in 1820 from Sir Patrick Ross, then Commandant of Zante. It now belongs to Mrs. Cockerell.

seen in several scaraboids found in tombs in the Crimea. On two of them the device is that of a crane, in the one case flying, in the other standing.¹ With the work of Dexamenos may be compared two unsigned scaraboids in the British Museum. The one representing a horse (No. 483), may be compared with a similar design from the Crimea,² and placed towards the beginning of the 4th cent. B.C., so as to be judged along with the horses of the Mausoleum frieze. The other here given (Pl. XII., No. 14) has a figure of Athena Parthenos, obviously copied from the famous statue of Pheidias in the Parthenon, with this difference, that on the gem she holds the acroterion or aphlaston of a ship to indicate a naval victory. So also No. 13 on the same plate, with the design of an athlete (or Perseus?) stooping to tie his sandal, belongs to this same period of excellence in engraving on scaraboids. Throughout the 4th century scaraboids continued to be produced, though apparently in smaller numbers, and with diminishing skill.

To persons who cared chiefly for the design engraved on a gem, the scaraboid was a waste of material, since the same effect could be produced on a thin slice of

¹ The flying crane is signed ΔΕΞΑΜΕΝΟΣ ΕΠΟΙΕ ΧΙΟΣ, and is engraved in 'Compte-rendu de la Commiss. Arch. pour 1861,' Pl. 6, Fig. 10, p. 147. It is a chalcedony scaraboid, mounted as a finger-ring. M. Chabouillet ('Gaz. Arch.' 1886, p. 154) is not quite sure of this gem, though he admits the beauty of the work. The other is merely signed ΔΕΞΑΜΕΝΟΣ: it is an agate scaraboid with cable border, and is engraved in 'Compte-rendu de la Commiss. Arch. pour 1865,' Pl. 3, Fig. 40, p. 95. The name of ΔΕΞΑΜΕΝΟΣ occurs also on a gem in the Fitzwilliam Museum, Cambridge, obtained by Colonel Leake, presumably in Greece (King, i. p. 123).

² Engraved, 'Compte-rendu de la Commiss. Arch. pour 1860,' Pl. 4, Fig. 10.

stone, which again could be mounted on a massive ring more sumptuously than the scaraboid with its necessarily plain hoop and swivel. The desire of saving expense and yet to combine a good design with some show, is to be seen also in the scaraboids made of glass paste, *σφραγίδες ὑάλιναι*. These glass scaraboids seem to have been worn as the central ornament of a bracelet, or as the pendant of a necklace. In some cases scaraboids appear to have been actually cut down for this purpose, but it is doubtful whether most of the gems now conveniently called cut scaraboids or cut scarabs, owing chiefly to the cable border round them, and to a certain affectation of archaism, are not simply late imitations.

From the 4th cent. B.C. onwards the form of gem most generally in use was a thin oval slice of stone having a design sunk on its face (intaglio) and set in a ring to be worn on the finger. Of the stones thus employed the most frequent is the sard, varying from a fine golden translucency to a deep blood colour. Amethyst, beryl, jacinth, garnet, plasma are more or less rare. Such stones as the onyx, sardonyx, nicolo, agate, chalcedony, jasper, are not uncommon among Græco-Roman gems, the sardonyx lending itself admirably for designs engraved in relief (cameo).

From what is known otherwise, it would reasonably be expected that gem-engraving, like the other arts of Greece, had reached perfection at the beginning of the 4th cent. B.C. Apart, however, from a certain number of the scaraboids already mentioned, and a small number of gold rings, only a very few examples of engraving have survived from this period. In these gems the design is extremely shallow; the lines are fine and a little scratchy, like those of a delicate

pen-and-ink sketch. Frequently the lines do not reach quite home to the points where they should begin or end, and this circumstance also lends to the engraving something of the character of an extremely delicate sketch. These, however, are points which cannot well be seen without a magnifying-glass. To the eye the engraving appears to be executed with all desirable precision. The design itself is conceived with singular simplicity.

We may place in the 4th cent. B.C., the fine sard (Pl. XII., No. 17) on which is engraved an ecstatic mænad. This gem has been broken, and the lower parts of the legs badly restored in gold. But for the rest the engraving is kept extremely shallow, the details of the figure being thought out with amazing delicacy. It will be seen that with all the refinement of beauty pervading this gem, the head is disproportionately large, a circumstance which suggests that the gem is older than the frieze of the Mausoleum, about 352 B.C., by which time such errors of proportion had ceased in all good work. Or again we may take the gem (Pl. XII., No. 16), a fine sard, on which is figured a lady seated, reading apparently a song, if we may judge so much from the lyre beside her. It seems to have been a love song from the fact that the word Eros¹ has been scratched in on the cippus below her lyre. In any case the engraving is again very shallow, and

¹ Eros occurs as the name of an Athenian sculptor on a statue of a priestess found at Olympia. There also the letters are of a late form. See Loewy, 'Inscr. Gr. Bildhauer,' No. 333. On the gem it is perhaps more probable that the word ΕΡΩΣ indicates not the name of the engraver, but the subject of the song which the figure is reading from the scroll, and may thus easily have been a subsequent addition made by a Roman owner of the gem.

very beautifully studied with a view to simplicity and purity of sentiment.

For further examples of the engraving of this period, we may refer to the collection of gold rings; and here it may be conjectured that owing to the intrinsic value of objects of this description the small number of them now existing may not represent the number actually found in recent years. An intaglio engraved on gold could have no translucency, and should the design embrace many lines such as are necessary to indicate draped figures, much of its effect would be lost unless the engraving were carried out with elaborate minuteness.

An alternative, when drapery with fine or minute lines was indispensable, was to represent the figure in slightly embossed relief. These embossed designs lead to the question of engraving in relief (cameo). Even as early as the 7th, or the beginning of the 6th cent. B.C., this principle of engraving was recognised in the decoration of certain shells (*Tridacna squamosa*) and ostrich eggs by Phœnician or Greek workmen resident in the Delta of Egypt. Still the cameo in its general signification does not appear to have become a permanent and favourite type of gem till the 4th, or more probably the 3rd cent. B.C., when the introduction of stones with variously coloured layers, such as the sardonyx, onyx, and nicolo, showed what effect could be produced by a design cut in relief in these materials, and when the use of rings as seals came to be superseded by the larger use of them as personal ornaments. Pliny states that Scipio Africanus was the first Roman who had a gem cut in sardonyx, and that from his time this gem came much into favour.

Apparently the cameo engraved in onyx or sardonyx and serving merely as an ornament had been preceded by cameos cast in glass paste and coloured to imitate precious stones, as also by cameos impressed in terracotta and then gilt to imitate gold medallions.

The process of making the pastes seems to have been to first model the design carefully in clay, to make a mould from the clay, and to cast the paste in this mould. The most productive period of this industry seems to have been the 2nd and 1st cent. B.C., though it flourished also before and after that time. This period coincides with the somewhat analogous branch of art represented by a series of small and often circular reliefs moulded on *aski* and certain other vases of black ware which, from the inscriptions on them and from the character of the art, have been assigned to the middle of the 2nd cent. B.C. The inscriptions here referred to are in Latin, and they show that Roman workmen at the date in question had taken in hand the making of these vases, confining themselves, however, with rare exception, to the reproduction of Greek subjects and Greek designs already familiar in art.

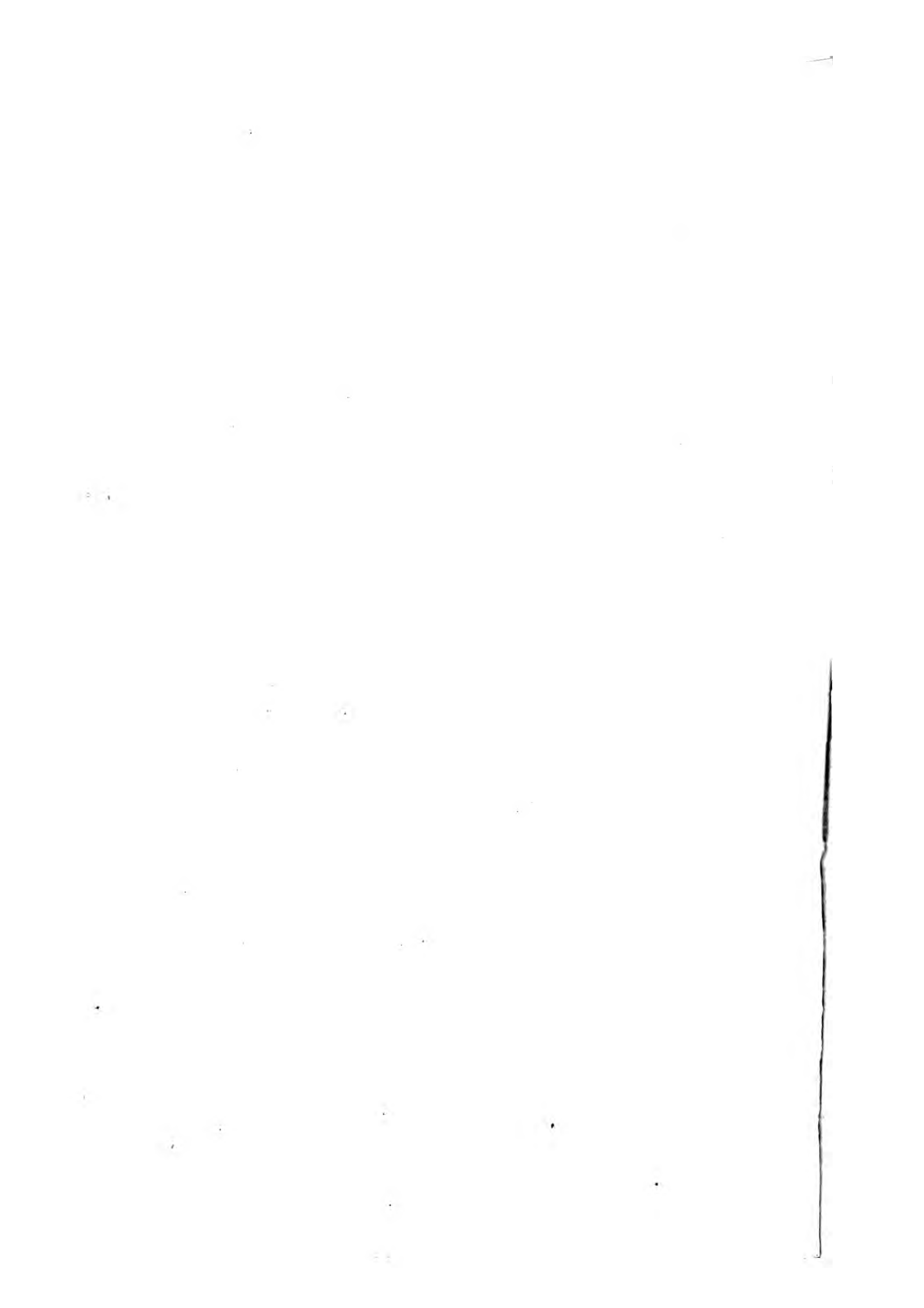
What with cameos, then, and pastes, neither of which were suitable for sealing, Greek gem-engraving had by the 4th and 3rd cent. B.C. or earlier, reached a stage in which its aim and occupation must have largely been to minister to luxurious tastes. At the same time there was still a fairly large demand for actual seals. We must remember that a Greek did not go about with a bunch of keys in his pocket; in fact he had no pocket to put them in. If he wanted to keep a thing safe he sealed it up (Sophocles, 'Trach.' 614), and trusted to the punishment which befell those



Julia daughter of Augustus.

Sardonyx Cameo - British Museum.

John Murray, Albemarle Street.



who broke a seal. A curious instance of sealing the doors of a temple occurred at a festival at Elis, during which it was the custom to place three empty vases in the temple of Dionysos in presence of citizens and strangers, and then to seal the doors, the priests and any stranger who chose being allowed to add his seal. Next day the seals, being still intact, were broken, and the three vases found to be full of wine (Pausanias, vi. 26, 1). In ancient times the symbol of sealing was employed in the religious mysteries and passed down from them into the Christian church. Very probably it was from some knowledge of this that our early English bishops, at a time when classical art was unknown in this country, frequently had genuine ancient gems mounted in their seals, as we see from the many impressions of them that are still attached to deeds of lands and such like made by these bishops. Generally these gems are commonplace enough in point of engraving, but they show how even in very dark ages there was observed to be a certain distinction in an ancient engraved gem. It is to be remarked also in regard to the large cameos, of which a certain number exist, that there is no instance on record of the finding of any such gem, while on the other hand the history of some of them, as for instance the Sainte-Chapelle cameo in Paris, goes back to the middle ages. We may reasonably suppose that they have passed directly from hand to hand, from the time they were carved to now. The Augustus of the British Museum is traced back to the old Strozzi family of Florence. The two splendid specimens of the Carlisle collection (Frontispiece and Pl. XIII.) had probably been obtained from Cardinal Ottoboni at the end of the 17th cent.; beyond that we cannot conjecture what their history had been.

It would seem to be a maxim that when there is utility in a thing, that thing has many chances of being done well. In the matter of engraved gems it was useful to be possessed of one or more of them. There were many reasons why it was an additional advantage to have engraved on your gem the portrait of some distinguished leader or patron, or person otherwise admired. The Emperor Augustus had a seal with the portrait of Alexander the Great on it.¹ We have a portrait of the philosopher Aristippos, and must suppose that it had been worn by some follower or believer in his system of philosophy; so also with our portraits of Socrates, and Plato, and others. But Alexander himself was not the person to acknowledge any leader or patron. He required a portrait of himself to seal with, and so set an example which ambitious men in after times were ready enough to follow, as we know from many interesting specimens of portraiture on gems. Alexander took care to have his portrait well engraved, and finding in Pyrgoteles an artist with whose skill he was satisfied, he issued a command that no one but Pyrgoteles was to be allowed to engrave his portrait.² In this way Alexander gave

¹ Pliny, 'N. H.,' xxxvii. 10.

² Pliny, 'N. H.,' vii. 125, and xxxvii. 8. In the second of these passages it is sometimes supposed that Alexander only forbade the engraving of his portrait on emerald by others than Pyrgoteles. But such an interpretation is quite improbable, as Chabouillet rightly thinks, 'Gazette Archéol.' 1885, p. 349. It may here be mentioned that the gem with a portrait, generally called Demosthenes, and signed with the name Dexamenos, would, if it were admittedly a true gem, be an instance of portraiture in the 4th cent. B.C. The doubts that have been raised appear to be well founded. See Chabouillet, 'Gaz. Arch.' 1886, p. 154. This gem is engraved in the 'Compte-rendu de la Commiss. Arch. pour 1868,' Pl. 1, No. 12, p. 54, Stephani there praising it highly as a

a fresh impetus to gem-engraving, not only by the introduction of portraiture, but also by his manner of singling out and honouring a particular artist. From his time onward two things became more and more common: good portraits, and the occurrence of engravers' names on gems.

As regards existing portraits of Alexander, we have a small gem deserving of notice for the clearness and vivacity with which the general likeness is rendered. Compared with the marble head in the British Museum, which is admittedly the best known portrait of Alexander, this gem is doubtless much at fault in the matter of style and in subtle indications of character. Possibly these defects will be best explained by taking the gem to be a work of the time of Augustus, who, as has been said, used a portrait of Alexander as a seal, and who may be assumed to have had his seal made to resemble as closely as possible an original by Pyrgoteles.

After Pyrgoteles, Pliny ('N. H.,' xxxvii. 1, 8) names Apollonides, and Cronios, and Dioscurides, the last mentioned having engraved the portrait of Augustus with which subsequent emperors sealed.¹ It may be taken from the natural connection of these words, first, that Apollonides and Cronios, like the others, engraved portraits, and secondly, that they lived at a time intermediate between Alexander and Augustus, possibly in the times of the Diadochi, when portraiture was

genuine stone; engraved also in King's 'Ant. Gems and Rings' (1872), i. p. 400; cf. p. xviii., where this gem is said to have been found at the foot of Mount Hymettus.

¹ Dio Cassius, 'Hist. Rom.,' li. 3, says that Augustus had first the device of a sphinx and afterwards a portrait of himself, which subsequent emperors used, except Galba.

in high favour, and when precious stones were much valued. Both these names have been found on gems, but in no case without reasons for suspecting their antiquity. Equally there are gems which claim to be portraits of Ptolemaic princes or princesses, but in general there prevails uncertainty as to their being contemporary works.

This brings us now to Dioscurides, the last of the engravers mentioned by Pliny. Among the many gems bearing his name it is easy to reject some as modern. Others again may be distinguished as modern, so far as the inscription of his name is concerned, the antiquity of the gem itself being left in abeyance or even defended. For example, in the British Museum gem, No. 1542, with the head of a young king, possibly Juba II., and signed ΟΥΣΟΙΔ, the inscription is evidently recent, since no ancient engraver would have made the mistake of not reversing the ζ in a reversed inscription. Similarly No. 1656, an amethyst portrait intended for Augustus and signed ΔΙΟΚΚΟΡΙΔ, is more than doubtful as to the inscription. But it has been argued that not one of these gems bearing the name of Dioscurides is ancient;¹ and indeed the diversity of workmanship among them makes it hard to decide which, if any, are true. This difficulty may be illustrated by comparing the two heads of Cæsar, in the British Museum, both bearing the name of Dioscurides, the one engraved on jacinth (No. 1558), the other on sard (Pl. XII., No. 18).

¹ Koehler, 'Schriften.' iii. p. 149; similarly, Chabouillet ('Gaz. Arch.' 1886, p. 155) appears to have little confidence in any of these gems. On the other hand Furtwaengler ('Jahrbuch' iii. p. 218) accepts six of them, but not either of the head of Julius Cæsar in the British Museum (Nos. 1557-8, p. 301).

Obviously the same model has served for both. But while the engraver of the jacinth has bestowed infinite pains on the minutest detail with the result of driving the artistic sense out of his work, the engraver of the sard (Pl. XII., No. 18) has treated his subject with a simplicity and absence of disturbing details which announce in him artistic powers such as have not often been displayed by other than ancient engravers. So far the sard may fairly claim to be antique as well as beautiful. Nor indeed does the laborious minuteness of the jacinth finally dispose of it as comparatively modern, since that quality of minuteness, though hardly with so bad effect, is not unfrequent among really ancient gems. Even more beautiful in workmanship than the sard just referred to is another sard representing Mercury, which we give on Pl. XII., No. 19. This gem was formerly in the collection of Lord Carlisle.

In general the name of an engraver on a portrait gem has the effect of awakening some degree of suspicion, the more so if it is a name known in ancient literature, like that of Dioscurides: first, because on the ancient portraits which now enjoy the greatest reputation there are no such signatures, and secondly, because in the cinque-cento period the much-practised art of portraiture on medals may well have influenced the production of gems professing to be antique and bearing the names of artists known from ancient literature. The most ambitious of the ancient portraits now known are to be found among the cameos, such as the three in the British Museum (Augustus, No. 1560, Julia, daughter of Augustus, as Diana, Pl. XIII., and Julia, daughter of Augustus, as Minerva combined

with Livia as Juno, *frontispiece*); and yet, though there exist not a few cameos of even greater ambition and skill than these, on none of them is a signature to be found.¹ On this view the inscription on the beautiful fragment of a cameo, in the British Museum, No. 1589, with a head attributed to Germanicus, and bearing the name of ΕΠΙΤΥΓΧΑ[ΝΟΥ,² would be a modern addition. Before, however, applying this rule rigidly to cameos, it would be well to bear in mind that a large number of late Roman gems have no other ornament than inscriptions wishing good luck or such like, and that this later taste for inscribed gems may have led in antiquity as well as in more recent times to the addition of names—whether those of engravers or owners—to gems which had been handed down among ancient collectors. The same consideration should be extended to intaglios, except perhaps where they bear famous names like those of Pheidias or Praxiteles, in which case it may be concluded that the work is either that of a Roman slave named with such a name,

¹ Cf. Chabouillet, 'Gaz. Arch.' 1886, p. 158. Here will be found, also discussed at length, the formerly Marlborough gem, bearing the name of Eutyches, who styles himself a son of Dioscurides. The conclusion arrived at is, that after all the authenticity of the signature is not proved.

² Bernoulli, 'Römische Ikonographie,' ii. Pl. 26, Fig. 8, p. 177. Köhler, 'Schriften,' iii. p. 208, accepts this inscription of Epitychanus among his five really ancient signed gems.

M. Chabouillet ('Gaz. Arch.' 1886, p. 152), referring to his opinion in 1880, that out of the 257 reputedly ancient cameos under his charge in the Bibliothèque in Paris, only two were signed, and that neither signature was ancient; that out of 1756 intaglios, nine had signatures, but that only four of them seemed antique, now proposes to reduce these four to one, viz. the bust of Julia Titi, signed ΕΥΘΑΟΣ ΕΠΟΙΕΙ.

or of a modern engraver. No distinction between the engraving and the inscription holds good there as it may in other cases.

The gems engraved with mottoes, though obviously of a late date, may yet be regarded as in some sense the successors of the old medicinal ring, familiar in the time of Aristophanes, the *δακτύλιος φαρμακίτης*, which druggists were wont to supply in the place of drugs at apparently a very cheap rate,¹ or those magical rings which could, but did not, reveal the future, or which might render the wearer visible and invisible by turns, like the ring of the ancestor of Gyges. Among other beliefs attaching to the use of finger-rings it may be mentioned, that according to Aulus Gellius (x. 10) the early Greeks, and the Romans also, chose to wear the ring on the fourth finger of the left hand, because within that finger was a nerve which led direct to the heart. This information, he says, had been first obtained by the Egyptians in the process of mummifying the bodies of their dead.

The habit of collecting engraved gems for the sake of their beauty is known to have been occasionally indulged in by private individuals in ancient Greece, particularly among musicians. It is conceivable that a flute-player who collected gems may have been influenced chiefly by a vain desire to increase the glitter of his fingers as they moved on the flutes. But it is a more probable and more charitable view to assume that he had been conscious of an artistic affinity between his own art and that of the gem-engraver. Still no public collection of gems appears to have been formed in Greece with the view of

¹ See the Scholiast to Aristophanes, 'Plut.' 884; and the quotation from Antiphanes given by Athenæus, iii. 123 B.

educating the general taste. The nearest approach to anything of the kind was to be seen among the treasures dedicated in temples, such for example as in the Parthenon at Athens. The treasures of the Parthenon have perished, but several inventories of them exist, which, dating from about B.C. 400, contain numerous entries of gold and silver rings set with seals.

Among the Romans, in the last century B.C., gem-collecting became a passion, the impulse towards it having been given by the Cabinet of Mithradates, which Pompey carried off to Rome and placed among the treasures of the Capitol. Following this example, Julius Cæsar presented six cabinets, or dactyliothecæ, in the temple of Venus Genetrix, and Marcellus one in the temple of Apollo Palatinus. Subsequently the demands for works of this class so far exceeded the natural supply that no species of fraud was, according to Pliny ('Nat. Hist.,' xxxvii. 197), more lucrative than the manufacture of false gems in the shape of glass pastes and other materials. It may be taken that this industry was chiefly occupied with the imitation of those subjects and designs which had become familiar and admired on the genuine ancient gems which it was the desire of the collector to obtain. To this source may be traced in a large measure the constant recurrence of the same design and the same manner of treatment which strikes the student who has examined a number of public or private collections. Obviously gems thus produced must present considerable difficulty to the student. They have not only to be distinguished from the older gems which they sought to imitate, but also from comparatively modern gems made expressly and with much skill to imitate these ancient imitations.

With the Renaissance the passion for collecting ancient gems revived, and has remained more or less in force ever since. Cabinets formed by wealthy collectors were from time to time broken up and dispersed, ever helping to form new cabinets. A field was thus opened again for the imitator; but it was not till towards the end of last century that his occupation assumed large dimensions, and accordingly gems which can still be traced back to cabinets formed previous to that date are held to be presumably free from any charge of imitation.

LIST OF GEMS ON PL. XII.

(All in *British Museum, and full size.*)

1. Bull, of Tiryns type, scaraboid. Brit. Mus. Cat. No. 110. *Egypt.*
2. Lion attacking bull; scaraboid, agate, chalcedony.
3. Bull; scaraboid, agate, chalcedony.
4. Isis and Horus; scarab, plasma. Phœnician style. *Chiusi. Hamilton Gray Coll.*
5. Chariot; scarab, sard. Brit. Mus. Cat. No. 254.
6. Winged fate; scarab, sard. *Cyprus.*
7. Achilles seated; scarab, banded agate. *Hamilton Gray Coll.*
8. Heracles and Achelōus; cut scarab, plasma.
9. Athena Gorgophona; scarab set in gold, banded agate. *Amathus, Cyprus.*
10. Man and horse; scarab, banded agate. *Macedonia.*
11. Satyr; scarab, agate. Brit. Mus. Cat. No. 289.
12. Dædalos; scarab, inscribed TAITVE; sard. Brit. Mus. Cat. No. 329.
13. Perseus (?) fastening sandal; scaraboid, burnt carnelian. *Tarsus.*
14. Athena Parthenos; scaraboid on silver hoop. *Cyprus. Arch. Zeit. 1884, p. 166.*

15. Citharist; burnt carnelian, intaglio. Brit. Mus. Cat. No. 555.
16. Girl reading; sard, intaglio. Brit. Mus. Cat. No. 556.
17. Mænad; sard, intaglio. Brit. Mus. Cat. No. 554.
18. Julius Cæsar; sard, signed Dioscurides. Brit. Mus. Cat. No. 1557.
19. Mercury, holding head of ram; sard, signed Dioscurides. *Carlisle Coll.*
20. Diana with stag; garnet, signed Heius. *Carlisle Coll.*
21. Philoctetes; amethyst, signed Seleucos. *Carlisle Coll.*
22. Medusa; plasma, signed Sosos. *Carlisle Coll.*
23. Portrait of old man, probably of the Ptolemaic period; chalcedony. *Carlisle Coll.*
24. Portrait, female; garnet. *Carlisle Coll.*

ENGRAVERS.

For specimens of their work see 'Jahrbuch des Arch. Inst.,' III. and IV., as follows:—

- Agathangelos, *Jahrbuch*, III. pl. 3, fig. 9.
- Agathopous . . . III. pl. 8, fig. 15; compare gem in Brit. Mus. No. 1552, which is suspected.
- Anaxilas . . . III. pl. 8, fig. 12; *ibid.* p. 208, where this name is given as Herakleidas. On gold ring in Naples Museum.
- Anteros . . . III. pl. 10, fig. 15; compare fragment of cameo in Brit. Mus. from Carlisle Coll. signed ANT[ΕΡΩC (?)] ΕΠ[ΟΙΕΙ].
- Apollonios . . . III. pl. 10, fig. 8.
- Aristoteiches . . . III. pl. 8, fig. 2; scarab found near Pergamon.
- Aspasios . . . III. pl. 10, fig. 10.

- Athenades, *Jahrbuch*, III. pl. 8, fig. 3, found at Kertch.
- Athenion . . . III. pl. 3, fig. 3; pl. 8, fig. 19; IV. pl. 2, fig. 1.
- Aulus . . . IV. pl. 2, fig. 3. See gem in Brit. Mus. No. 1130.
- Boethos . . . III. pl. 8, fig. 21.
- Cneius (Gnaius) . III. pl. 10, fig. 6; compare gem in Brit. Mus. No. 1281.
- Dexamenos of
 Chios . . . III. pl. 8, figs. 6-9.
- Diodotos . . . IV. pl. 2, fig. 6.
- Dioscurides . . III. pl. 8, fig. 23, in Brit. Mus. (formerly in Carlisle Coll.; see our pl. XII., fig. 19).
 III. pl. 11, fig. 14, in Brit. Mus. No. 1557.
- Epitynchanos . III. pl. 11, fig. 1; cameo in Brit. Mus. No. 1589.
- Euodos . . . III. pl. 11, fig. 4.
- Eutyches . . . III. pl. 10, fig. 3.
- Felix . . . III. pl. 10, fig. 7.
- Heius . . . III. pl. 11, fig. 7, in Brit. Mus., formerly in Carlisle Coll.; see our pl. XII., fig. 20.
- Herophilos . . III. pl. 11, fig. 2.
- Hyllos, son of
 Dioscurides . ΥΛΛΟΣ ΔΙΟΣΚΟΥΡΙΔΟΥ ΕΠΟΙΕΙ.
 Cameo in Berlin.
- Koinos . . . III. pl. 10, fig. 20.
- Lucius . . . III. pl. 10, fig. 25.
- Lycomedes . . IV. pl. 2, fig. 2.
- Mycon . . . III. p. 317.
- Nicandros . . . III. pl. 8, fig. 14.
- Olympios . . . III. pl. 3, fig. 7. Eros drawing bow.
 Berlin—bought in Athens. Praxite-
 lian period.
- Onatas . . . III. pl. 8, fig. 10.
- Onesas . . . III. pl. 8, fig. 16, 17.

- Pamphilos *Jahrbuch*, III. pl. 10, fig. 14.
 Pheidias, . . . III. pl. 8, fig. 13.
 Philemon . . . III. pl. 10, fig. 5.
 Philon . . . III. pl. 8, fig. 11. On silver ring.
 Asia Minor.
 Phrygillos . . . III. pl. 8, fig. 4.
 Polycleitos . . . III. pl. 8, fig. 28.
 Protarchos . . . III. pl. 8, fig. 20. ΠΡΩΤΑΡΧΟ
 ΕΠΟΙΕΙ occurs on a cameo of Venus
 and Cupid, from Bagdad, belonging
 to Dr. W. Hayes Ward, New York.
 Quintus . . . III. pl. 10, fig. 19.
 Rufus . . . III. pl. 11, fig. 10.
 Saturninus . . . III. pl. 11, fig. 3.
 Semon. . . . III. pl. 3, fig. 6.
 Skylax . . . III. pl. 10, fig. 24.
 Solon . . . III. pl. 11, fig. 9.
 Sosos . . . III. pl. 8, fig. 18; in Brit. Mus.; see
 our pl. XII., fig. 22.
 Sostratos . . . III. pl. 11, fig. 8.
 Syries (Dories?) . III. pl. 8, fig. 1.
 Teucros . . . III. pl. 10, fig. 13.
 Tryphon . . . III. pl. 11, fig. 5.

To these we may add Seleucos, from our pl. XII., fig. 21.

NAMES, NOT OF ARTISTS, BUT POSSESSORS

(according to Furtwaengler, 'Jahrbuch,' IV. p. 64 fol.).

Admon occurs on Marlborough and Blacas gems, the latter now Brit. Mus. 1312: Heracles with club and skyphos. All others with this name, as far as he knows, are false.

Nicomacus. Brit. Mus. specimens modern.

Pharnakes. The Brit. Mus. gem with ΦΑΡΝ (883)

antique, but inscription modern. (Another in Brit. Mus., recently acquired from Amisus, reads ΦΑΡΝΑΚΟΥ, and has a figure of Fortuna; quite antique in all respects.—
A. S. M.

Alpheos, found on an antique cameo, but used by forgers for artist's name.

Allion, = Dalion. Name read "Allion" in 17th cent. and thereafter forged, but Dalion is right.

CHAPTER VI.

SCULPTURE IN RELIEF.

Χαιρέτω δ' ὁ Δαίδαλος καὶ τὰ Δαιδάλου μιμητὰ τεχνήματα.
DIO CHRYSOSTOM, *Orat.* 37.

IT is proposed now to treat of sculpture in relief, that being a branch of ancient art nearly allied to gem engraving and vase painting, with which we may by this time be supposed to have become familiar. Familiarity with designs on the vases will at least help us to imagine what the general aspect may have been of certain sculptures in relief, of which only the ancient description has survived.

We have already had several occasions of referring to the influence of Assyria and Egypt on early Greek art. The art of both these countries was eminently an art of sculpture in relief. From both a long series of reliefs has survived. Assyria has left us no sculpture or statue in the round worthy of being called artistic. Egypt, undoubtedly, has furnished many statues worthy of admiration. But in Egypt, also, a fascinating element of her art is to be found in the long lines of bas-relief. It is not strange that in these countries bas-relief was the favourite form of art. Any day may be seen how in Egypt the exceeding brightness of the sunlight, and the absence of what artists call atmosphere, combine to present any object at which one may look in the form of a silhouette with its outlines strongly marked, but with

no sufficient indication of the details. A string of camels or a herd of goats as they pass, display vividly the contours of each individual of the group; the main action or movement of each goat or camel stands out clearly cut against the light. But it is only with difficulty that we perceive the details of form. The first and chief impression is that of a very low flat relief, in which the outline plays the principal part. What we thus observe in nature at any moment, is what we see in the whole of the Egyptian sculpture in relief. Natural effects were probably much the same in Assyria as in Egypt. At all events we have there the same phenomenon of excellence in bas-relief, so far especially as the outer contours are concerned, and the facility of rendering action and movement in animal life.

In Greece all this was changed. There we have an intensely bright sunlight, no doubt, but it is accompanied by an atmosphere of the very finest quality, in which every detail of form is presented with vivid clearness and distinctness. If mere outline or contour in the human or animal figure loses its strikingness, it gains in intelligibility, because every movement of it is seen to be dependent on the movement of muscle and bone. The figure presents itself with organic completeness.

When such is the state of the case, it may seem strange that the Greeks also should have excelled in sculpture in relief. But in fact one cannot think of Greek bas-relief and try to account for its origin, without being driven back to a consideration of the Oriental influence which had been exercised on the Greeks at a time when their artistic gifts were just emerging into activity. We remember that Greek bas-relief consists for the most

part of long sculptured friezes, such as those of the Parthenon and Mausoleum, which, when we think of them apart from their distinctive beauty, convey the impression of having been rolled out mysteriously in marble from some large engraved cylinder. The impression made by a cylinder would give the idea of a processional composition readily enough, while the amount of relief in an ordinary impression would suggest to the sculptor the extent of projection which he should employ in the marble.

We need not, however, suppose that the early Greeks were guided by the impressions of cylinders alone, when in fact the prevailing form of sculpture in relief with which they were acquainted, both in Assyria and Egypt, was that of a long, narrow band with a design of figures moving more or less along its length. So firmly was this idea implanted in the sculpture of Assyria and Egypt, that often when a wall surface of some height was required to be sculptured, and when thus an opportunity occurred of distributing a composition of figures over its whole extent, we find, instead of that, a number of parallel bands or friezes, one above the other. The early Greek sculptors may not have gone so far as that; but that they had obtained their idea of a frieze sculptured in low relief from Assyria and Egypt, is beyond doubt. From Assyria they were taught also to believe that a sculptured frieze should be bright in colour. They had before them such models as we see in the long bands of bronze embossed with processional representations of the triumphs of Shalmaneser II., which are now in the British Museum.

On no other theory can we understand how the frieze of the Parthenon came to be richly

coloured; still less how the bridles of the horses came to be made of glittering bronze and attached to the marble, as we know positively they were. The moment we admit the influence of these early bronze reliefs in suggesting to the Greeks their notions of what sculpture in relief should be, we come prepared to understand the rich colouring and bright accessories of metal, in which they indulged for a while. We recognise another important element of sculpture in relief, namely, that the height or projection of the relief was not determined, in the first instance, by the tastes of individual artists, but really by the nature of the bronze itself, which did not allow of being beaten out beyond a fixed limit. In the nature of marble there is nothing to suggest the notion of working a relief on its face. It is a solid aggregate substance, and may very well suggest a figure in the round, but not a relief. It is one thing to have the limits of what may or may not be done determined by the judgment of individuals; it is quite another and a much better thing to have them fixed by an unalterable law in the nature of the materials that are employed.

We speak of Oriental influence in Greece, as if it had been quite casual, had come unsolicited. We forget that from the 9th to the 6th cent. B.C. Greece was largely under the rule of men of great energy and talent for government, whom it was usual to style tyrants, and of whom one at least, Polycrates, the tyrant of Samos, is known to have taken as his model an Oriental despot, with armies of workmen, whom he kept employed in colossal undertakings, such as piercing a tunnel through a hill. As to the tyrants in Greece proper, we hear much of their activity, we

know that they stirred the energies of the people in many ways, but no one points out any of their works that have survived, except the tunnel of Polycrates.

Now, the beginning of the tyrants would coincide with the date we have arrived at for the earliest class of engraved gems and the vases found with them. Let us see whether it would not also agree with what is regarded as the oldest piece of sculpture in relief which Greece has to show—the huge group of two lions sculptured above the gate to the citadel of

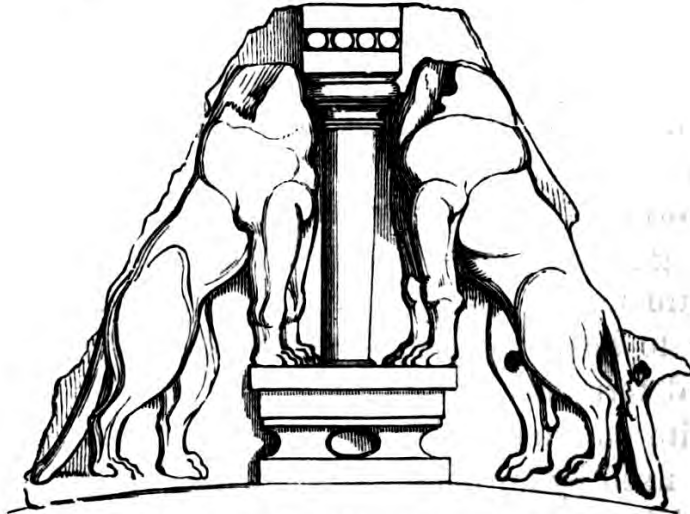


Fig. 59. Lions in relief above gateway at Mycenæ.

Mycenæ (Fig. 59). Precisely the same subject occurs on gems of the class found at Mycenæ, and as the sculpture of the gateway is generally admitted to be of the same age as the gems, the date we have arrived at for them will hold good for it also. Is it possible then, that the colossal walls of Mycenæ and Tiryns, the huge vaulted tombs of Mycenæ, Orchomenos and elsewhere, were the work of the tyrants of which we read so much, and know so little? If it were so, we should then be able to follow the stream of Greek art

backward without interruption to a powerful source in an age of great popular activity.

Meanwhile it may be useful to examine those Assyrian reliefs in bronze to which reference has been made (Fig. 60). In the 9th cent. B.C., a king of Assyria, Shalmaneser II., caused to be sculptured and erected at a place called Balawat, a huge bronze gate, on which were represented in relief a series of victories he had won over his enemies.

The designs on the Balawat gate are of a narrative

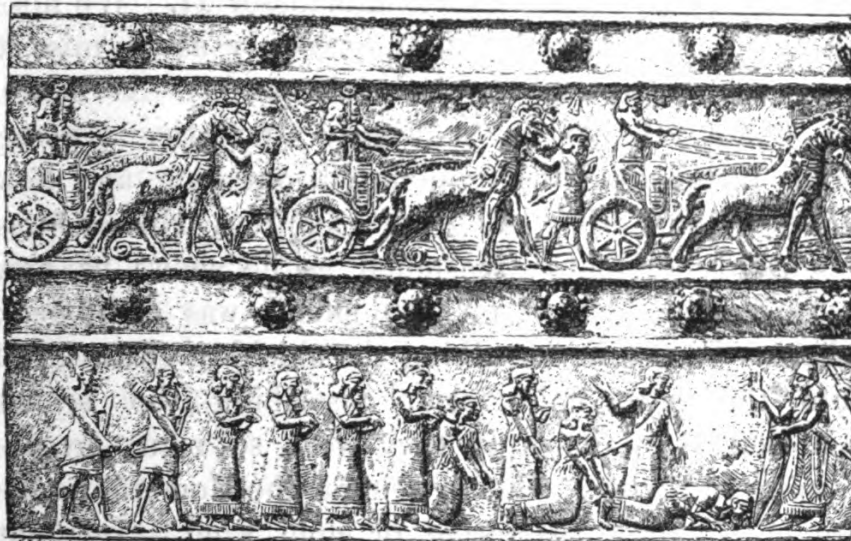


Fig. 60. From Balawat Gate, in Brit. Mus.

or epic kind. A series of events unfold themselves in long continuous lines of battle, siege, spoliation, prisoners. At one place we see the military operation of crossing a river on a pontoon bridge; at another a battering-ram at work against the wall of a town; the vanquished are to be seen prostrating themselves before the victorious king. Chariots are being driven in haste, sheep and oxen are carried off; prisoners are impaled or mutilated. In general the human figures are of one uniform type. Even the

king is not much more conspicuous than his men. Among the animals, oxen and sheep are fairly well studied from nature. But the horses are a curious breed, if the artist has not been much misled. They carry their heads in the air like giraffes. On the whole there is no great attraction in these reliefs from a purely artistic point of view. Where they do interest us is in the historical position which they occupy with reference to the subsequent art of Greece. One might call these reliefs an illustrated gazette of the victories of Shalmaneser II. We miss on them the dramatic spirit, precisely as we miss it to a great extent in the Homeric poems. At times, no doubt, Homer is strikingly dramatic. Among other instances, Lessing pointed out long ago how in describing the shield of Achilles, Homer was essentially dramatic, inasmuch as he shows us how each separate design on the shield was fashioned; whereas Virgil, in describing the shield of Æneas, fell into the pure epic form, describing the scenes represented on it as if they were so many events passing in review. But in general the Homeric poems are of a purely narrative or epic kind. Incident follows incident in long narrow lines.

Without offering a definition of what is dramatic and what not in art and poetry, one observation will be enough for our purpose. It is this. When we compare epic with dramatic poetry we find this difference, that the scenes in the epic are presented to us on the authority of the poet, who takes the place of an eye-witness of them. In dramatic poetry, on the other hand, the action is carried on before our eyes. We are invited to be witnesses of it, and are expected to sympathise with it throughout. The dramatic poet

requires our presence as spectators, and must reckon with that fact. He must so plan and concentrate his action that our attention shall be kept strained. Whether he employ pathos, unexpected incidents, or comic situations, his first task is to keep our attention, and to move our feelings. In short, to the dramatist the spectator, or reader for the matter of that, is an essential element, while the epic poet is himself the spectator.

Applying this observation to works of art, we see how completely the designs on the Balawat gate are of a narrative kind. The numerous incidents are paraded before us, as so many facts with which we may sympathise or not as we please. They are what the spectator actually saw. It is curious to compare those other famous bronze gates of the Baptistery in Florence which Ghiberti fashioned. The ancient method of long lines of incident has disappeared. The space is broken up into panels. Each panel contains a subject complete in itself. Each subject contains figures enough for itself. We are apparently not needed as spectators. Take, for instance, the panel with Abraham sacrificing Isaac; surely that incident might easily have been rendered with dramatic force. It would have been enough to have shown us the group of the patriarch and his son at the altar, and to have left us to our natural emotion. That would have been dramatic. But instead, Ghiberti gives us a secondary group of onlookers, who watch the scene from a little distance. This group comes between us and our right. It is for us to be the onlookers, and we resent the intrusion of that group till it dawns upon us that the artist wished to represent his scenes as illustrative of a great narrative. That was his main task, but like Homer and Milton he often breaks through the strict

conditions of the epic or narrative form of representation, and gives us groups of a purely dramatic character.

It is noticeable that among the enemies of Shalmaneser on the bronze gate is a nation or tribe which, from the inscription, is known to have lived around Mt. Ararat; that is, in a northern part of Asia Minor. What is striking about these people from Mt. Ararat is that they are armed with pure Greek helmets and even, as some think, with the still more Hellenic greaves on their legs. At all events, the helmets are enough to cause surprise. We cannot suppose that this people in the 9th cent. B.C. had got the idea of their helmet from the Greeks; but we can suppose without any effort that the Greeks of Asia Minor got the idea from this warlike people, at some later time, or even as early as the 9th cent. B.C., if that is necessary to the argument. It was the chief distinction of the Carian mercenaries from Asia Minor who fought in Egypt in the 7th cent. B.C. that they were armed with helmets and greaves. They were believed to have invented this armour for themselves; but it would now seem more probable that they had found it already invented and in use in Asia Minor when they first settled there.

It is unnecessary to say here that the oldest Greek poem we possess, the *Iliad*, turns on a war in Asia Minor, in which the Greeks were the aggressors and a native population the defenders. That such a war ever took place in the locality now called Troy, or indeed elsewhere, is a question we may pass over, with this observation, that Homer could not have sung it as he has done in the *Iliad* without the aid of some previous poems or ballads on a kindred subject to show him the way in so great a task. The conception of a great poem like the *Iliad* is of too organic a structure to

spring suddenly into existence. It has first to grow and to develop, till at the right moment a great genius takes it up. There were brave men before Agamemnon, says Horace, and no poet sang them. But that only means that no such song has survived. No doubt these brave men were sung of, and no doubt Homer knew the songs. We may assume these songs to have been founded on still older poems or ballads which had come westward from the older civilizations of Asia Minor or of Assyria. It is not necessary to suppose that the ballads had come westward in the shape of verse. The scenes and incidents on which they turned might equally have been expressed in works of art, and as such have been more intelligible than prose or verse to an early Greek poet.

Let us take for example Homer's description of the shield of Achilles in the Iliad. We cannot imagine that there ever had existed such a shield, and equally we cannot imagine how a poet could have invented such a shield without abundance of material to guide him in the description of it. The story of the shield is forced into the Iliad like a thing composed for some other occasion. Achilles has to allow his foolish friend Patroclus to borrow his armour for the fight. Patroclus loses his life and the armour as well. To get new armour for Achilles, the god Hephæstos must set himself with hammer and forge to produce a shield of vast elaboration at the very moment when haste was never more urgent if the tide of war was to be turned. Evidently the poet's mind was full of material for a fine conception complete in itself. Grant him to have seen one of those bronze shields which we have still from Assyria decorated with figures of animals, allow him to have been familiar with the inlaying of metals as we are familiar with it on works of the Phœnicians

which have survived from about his day, admit that the few instances in which he speaks of Phœnician and Egyptian handicraft represent a moderate acquaintance with contemporary products of this kind; above all grant him, as we must, that there had come down to him, originally from an Eastern and inland living nation—which can hardly have been other than Assyria—a legend in which a god was described as making an artistic representation of the world and the general order of its affairs, its ploughing, sowing, reaping, its pastoral life, the vintage with its mirth, life in towns with its crimes and trials, its marriages and rejoicings, its wars and terrors. Grant him this, which is surely a modest request in the circumstances, and we have no more difficulty as regards the shield of Achilles. It is a modest request, because in the legends which survive on the terra-cotta tablets of Assyria are several of equal importance with that which we are assuming Homer to have followed.

Homer, in fact, bears direct testimony to his having been influenced by works of art, when he says that the dancing scene on the shield was like the chorus made by Dædalos for Ariadnè. We are not surprised at any reference of the poet to Phœnician art. But this reference to a Greek sculptor is more than a surprise. Dædalos, we are told elsewhere, was a legendary person, and he may even have been that to Homer himself, but the fact remains that the existence of a celebrated work of sculpture in Crete did not seem to be anything strange to the poet. We know from the records of art that the first place in Greece in which sculpture attained eminence was the island of Crete. Cretan sculptors were sought after as early as the end of the 7th cent. B.C., and Crete has furnished a considerable share of the early engraved gems of

which we have spoken. More than that, in quite recent years there have been found in the Grotto of Zeus, on Mt. Ida in Crete, a number of bronze shields richly embossed with reliefs, which plainly indicate the work of Phœnician craftsmen copying Assyrian designs. The date which has been assigned to these shields is the 8th or the 7th cent. B.C., on the ground that they were probably imported from the Phœnicians of Cyprus, and that the 8th and 7th cent. B.C. was the great period of Assyrian influence in Cyprus.¹ In the British Museum is a bronze shield found near lake Van in Armenia. It also is embossed with concentric rows of lions and bulls, but the art is ruder than on the Cretan shields. It bears the name of Sargon, and thus belongs to the period when he and his successors ruled in Cyprus in the 8th cent. B.C., as we understand.

We have elsewhere described and endeavoured to restore the shield of Achilles ('Hist. of Greek Sculpt.,' i. pl. 1), and may here be allowed to pass on to notice the contrast presented by another celebrated work of art which, like the shield, exists only in a literary description. We mean the richly-sculptured chest in gold, ivory, and cedar, in which it was said Kypselos, the tyrant of Corinth, had been concealed in his infancy from persons who desired to take his life. It is to no great poet that we owe this description, but yet the chest itself was not unconnected with the charms of poetry. For Pausanias, in whose pages² the description occurs,

¹ See 'Museo Italiano,' ii., p. 690 fol., and Pls. 1-12. Pl. 1 is a purely Assyrian design which has passed through the mind of a non-Assyrian artist—most probably a Phœnician. On the other hand, there are many figures of sphinxes on these bronze shields which indicate a knowledge of Egyptian art also. There is, in fact, much in these bronzes to remind us of the Polledrara tomb at Vulci, the date of which falls in the latter half of the 7th cent. B.C.

² v. 17.

has preserved a few of the verses which common opinion ascribed to the Corinthian poet, Eumelos. These verses are purely descriptive of the sculptured groups to which they were attached, in archaic characters, and written, he says, in the manner called *boustrophedon*, that is, in lines going alternately from right to left and left to right. But though the verses are purely descriptive, the fact of a poet having been employed to compose them suggests a suspicion that Homer's elaborate description of the shield may not have been without influence in bringing about a subsequent association of poets and artists, as we see it in this case of Eumelos, and subsequently in the epigrams composed by Simonides for works of sculpture.

The chest of Kypselos, like the shield of Achilles, is crowded with design; but there is this obvious difference, that whereas in Homer no names are given to the figures represented, on the chest it is all the other way. Every person has his name. It is a sort of handbook of Greek legend, and in this respect we may class with it two other ancient works of sculpture, the throne of Apollo at Amyclæ, and the reliefs by Gitiadas on the brazen temple of Athena at Sparta. As to date, the chest of Kypselos, if the story that Kypselos was hid in it in his infancy is true, would reach back towards 700 B.C. But the story goes so much on the lines of the hero Perseus, and for the rest is so manifestly connected with the identity of the word *kypselè*, a chest, and the family name, that there may be some doubt whether the chest had not been produced at the instance of the descendants¹ of

¹ Plato, 'Phædrus,' 12, mentions a statue at Olympia dedicated by the Kypselidæ, and states that it was made of plates of metal beaten out and nailed together (*σφυρήλατον*), as was the manner before the introduction of casting. We know that this colossal

Kypselos, by whom it was dedicated in Olympia. It would thus belong to nearer the end than the beginning of the 7th cent. B.C. Its shape may be taken to have been oblong, like a chest ornamented with embossed plates of silver, found in a tomb of the 7th cent. B.C., at Vetulonia in Etruria. Apparently the designs were arranged on three sides of it in five parallel bands.

It would take us too far to describe the scenes here in detail.¹ We must, however, notice the suggestion that as many of the groups are isolated in subject, so also they had been isolated from each other and enclosed by ornamental borders, like those on a set of primitive gold ornaments found in recent years at Corinth, on some pieces of bronze plating from Olympia, and on a silver girdle from Cyprus.² Apparently the cable border was much in favour in those early days, and it may well be that the great frequency with which this border occurs on archaic Etruscan scarabs is to be accounted for by the influence of these early Greek works in metal. These

statue was of gold. Possibly both it and the chest were dedicated by Periander in the end of the 7th or early part of the 6th cent. B.C. See Klein, 'Kypsele der Kypseliden,' p. 5.

¹ I have given a proposed plan for the arrangement of the subjects in the 'Hist. Gr. Sculpt.' i., p. 63, with accompanying table. Since then M. Klein has proposed certain modifications of my arrangement; but these modifications are so slight that Prof. Klein is surely not entitled to take so much credit to himself ('Kypsele der Kypseliden,' p. 22), for what had been clearly pointed out in 'Gr. Sculpt.,' 2nd ed., i. pp. 71-72.

² Engraved, 'Arch. Zeit.,' 1884, Pl. 8; compare also Pls. 9-10 with similar gold ornaments from Athens and elsewhere. In some, the patterns and rows of rude figures and animals resemble closely the vases of the Dipylon style. For the bronze fragments from Olympia, see 'Ausgrabungen zu Olympia,' iv., Pl. 25; and for the Cyprus girdle, now in the Brit. Mus., see 'Jahrbuch,' 1887, Pl. 8 and p. 93, where it is assigned to the first half of the 6th cent. B.C.

Etruscan gem engravers preferred to take their subjects from the Greek legends, especially such as embraced only small groups of figures, two or three at most. In borrowing them from the Greeks they would borrow also the most constant forms of border, though in fact that was unnecessary, since the gem itself presented a natural border, as the Greeks in their gem-engraving mostly perceived.

From such-like materials—that is, from the subjects represented on archaic gems and painted vases, together with the actual remains of bronze reliefs dating from the 7th cent. B.C.—it is possible also to obtain a general notion of certain other archaic works which were celebrated in antiquity but are now lost. We refer to the sculptures of Gitiadas at Sparta on the statue of Athenè Chalkioikos, and on the bronze-covered walls of the temple where it stood; and next to the throne of Apollo at Amyclæ by the sculptor Bathycles of Magnesia. As, however, we have elsewhere ('Hist. of Greek Sculpt.,' 2nd ed., i. pp. 87 and 90) discussed fully the literary records concerning these two famous works and the probabilities of restoring them, we will pass on to a new and more advanced stage of bronze work in relief, and thereafter turn back a little to reliefs in stone and marble.

During the 6th cent. B.C., so far as we can judge, there was not much done in the way of reliefs in bronze. That was an age of colour; sculpture in marble, fresco-painting, and vase-painting, had started on a new life. Even the sculpture in marble was brightly coloured; the taste was for bright, strong colours, the one set against the other. But reliefs in bronze could not compete in the taste of the day with mural pictures, or the innumerable painted vases; and so, while these arts were making great strides, and

winning public favour at all hands, reliefs in bronze were in a great measure set aside. The movement in favour of bright colours had to run its course. We do not suggest that it was merely a movement in favour of bright colours; on the contrary, there was combined with it an ambitious effort towards largeness of style, not at first, but gradually as the movement advanced.

An illustration of the improvement that was reached, so far as concerns relief in bronze, is to be seen in a small figure of Athenè (Fig. 61). It was found in the course of excavations on the Acropolis of Athens, and belongs to a period previous to the destruction of the Acropolis by the Persians, 480 B.C. The bronze retains very obvious traces of the fire on that occasion: we have called it a relief, but it is in fact two reliefs placed back to back, showing both sides of the figure.

That itself is not strange, because for many purposes it might be convenient to have, instead of a statuette in the round, a thin figure like this, which should represent both sides of the goddess in relief. What is strange is that



Fig. 61. Athenè. Relief in bronze, Athens.

no other example has survived. We have statuettes and reliefs, but no amalgamation of the two as here. At the same time it may be worth mentioning that we have a bronze relief in the British Museum, where we see two figures of Athenè seated face to face, the one being the exact counterpart of the other (Fig. 78). This bronze of the two Athenès has been long known, and some singular theories have been offered as to the meaning of these two figures of one and the same person sitting placidly contemplating each other. We believe the explanation to be simply this, that if these two figures were removed from the background and placed back to back, as in the case of the bronze in Fig. 61, we should have just one complete relief of Athenè made to be seen from both sides. As it is, they form at once a finely-balanced group and a warning against composition to the neglect of common sense.

But to return for a moment to the bronze Athenè: it is clear that something of the archaic manner has not yet been got rid of. For instance, the tallness of the figure. Tallness and spareness of form were two fairly constant features in archaic sculpture. Of course there were exceptions, and some very notable ones. Another characteristic was the passion for gracefulness. We shall see other examples of it in the archaic marble statues found on the Acropolis of Athens. The frequent references to "charis" in the older poets show that a refined taste must have been universal. This archaic gracefulness expended itself on the draperies, on the face and hair, appearance and demeanour. In this bronze we still see an affectation of gracefulness in the drapery. In its way it is beautiful; it is more

beautiful than anything that had been done before. It surpasses the older manner even on its own ground of carefully studied drapery.

More than that, the whole type of figure is of a larger and more ideal mould. In particular, the face has attained a fulness in its forms and a command over expression unknown before. Let us add a belief that it was amid sculpture of the style of this bronze Athenè that the earlier part of the career of Pheidias was spent. It was directly on figures of this type that he built up his great ideal of the Athenian goddess.

Up to now we have had no mention of sculpture in stone or marble, except the mention of the well-known relief of two lions above the gateway of Mycenæ (Fig. 59), which represents, so to speak, the city arms, and is more like the huge impression of a seal than spontaneous work in sculpture. At the same time it is not improbable that marble had been occasionally sculptured to present an appearance resembling the reliefs on the long plates of bronze, or tablets pressed out in terra-cotta from moulds. But in general it may be maintained that sculpture in marble was comparatively late in coming into favour. Nor was this singular; we have only to remember the richly-toned bronze, the gold and cedar, ivory and ebony, not to speak of the coloured terra-cotta, in which artistic designs had hitherto been executed, to see how little attraction there would be, to tastes thus formed, in the pure and cold marble. The notion was that if marble must be used, then it also should be richly coloured. Nor were bright colours dispensed with, until they had become quite incompatible with growing refinement in the modelling of forms and surfaces.

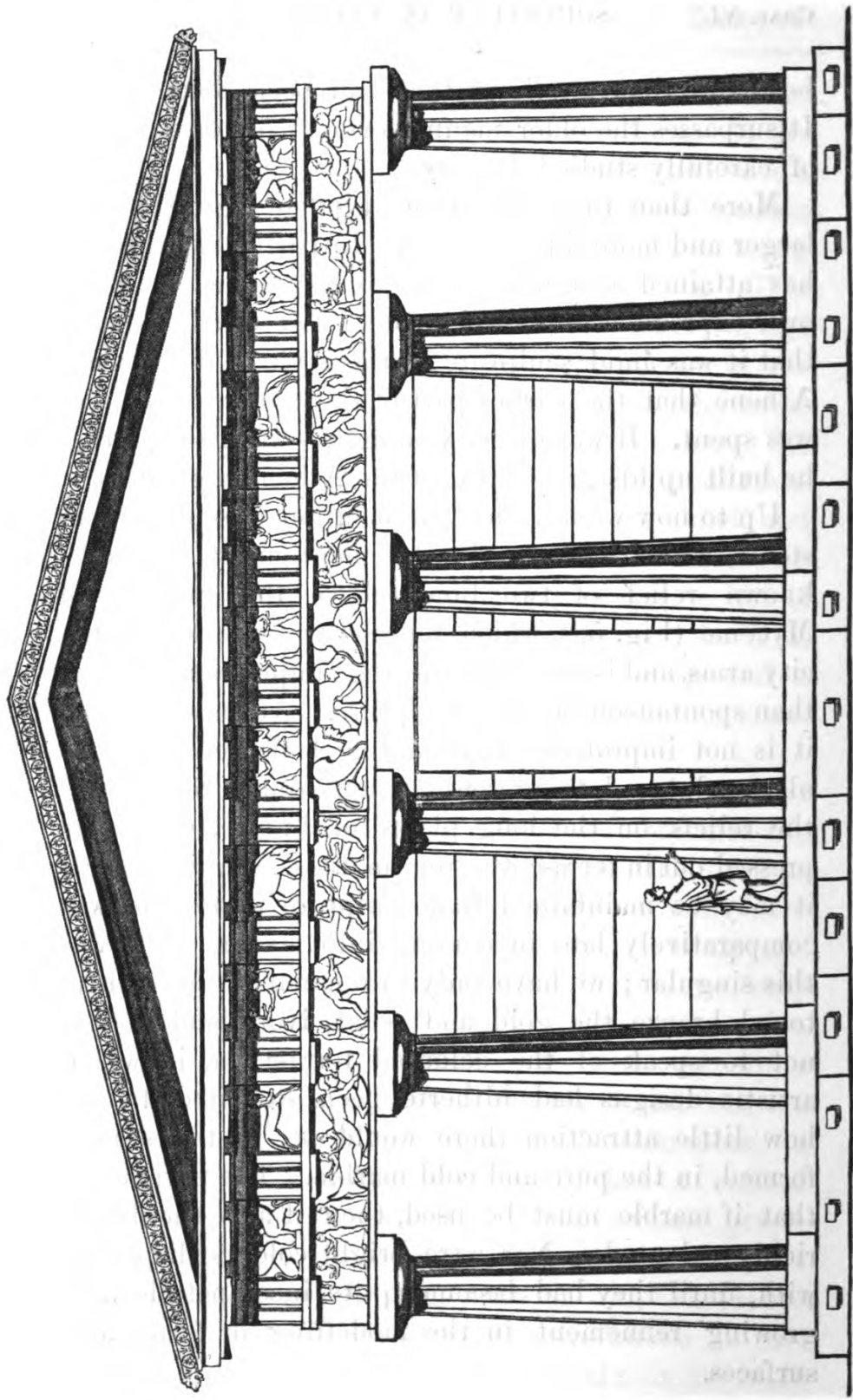


Fig. 62. Doric Temple at Assos, restored.

By the end of the 7th cent. B.C., Greek sculpture had begun to develop rapidly in skill of execution and in the composition of scenes in which many figures were represented. The traditional habit of working in relief at once assisted this development, while at the same time it retarded the growth of a spirit of observation of nature. It should be noticed also that up to then the chief occupation of art had been the production of objects to please private tastes. It had not yet challenged public attention to any great degree, and thus had not been able to profit by the free criticism of the whole people. It had never been roused into examining itself and its powers.

One of the oldest examples of public sculpture properly so-called, is to be seen in the remains of a Doric temple at Assos in the Troad, of which parts of the frieze and the metopes have survived. They are now distributed between the Louvre, Boston in America, and Constantinople. The restoration here given (Fig. 62) is due to the American excavations at Assos in 1881, and is the work of Mr. Thatcher Clarke. This temple was singular in having both frieze and metopes, the one immediately above the other. On the frieze are bulls and lions grouped as on the vases of the 7th cent. B.C., reminding us that the old Oriental habit had not yet been wholly got rid of. The relief (Fig. 63) is low and carefully executed as of old; nor are the principal subjects new altogether. We have seen one of them before on an island gem: it is the contest of Heracles and Nereus, carried on to the astonishment of certain sea-nymphs, who dread the consequences to their friend Nereus. Their manner of expressing astonishment and fear is to extend their

arms with the palms of their hands open, to run away, and yet be unable not to look back.

Observe the skilful use that has been made of the narrow space of the frieze to bring in a group of

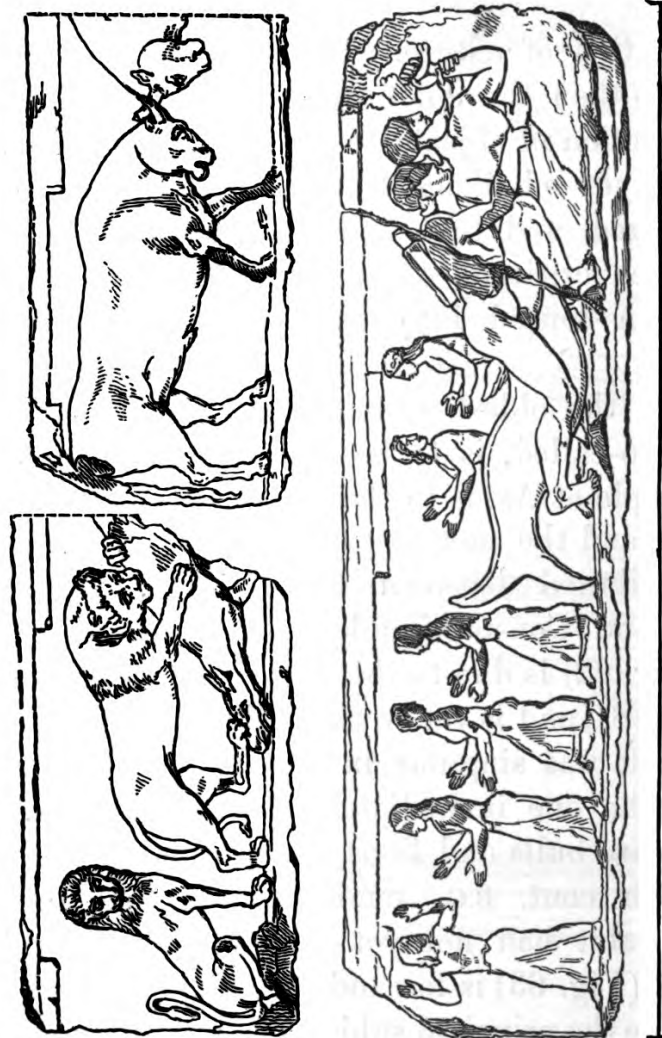


Fig. 63. Three slabs of frieze in the Louvre. From Assos in the Troad.

colossal proportions, such as those of Heracles and Nereus, with the purpose of accounting more explicitly for the excitement and emotion of the nymphs. And yet at the foundation of the design

lies the just observation that a figure like Nereus, half fish and half man, could only be wrestled with on the ground. Acting upon this observation, the sculptor obtained largeness for his principal characters. The rest of the front frieze is occupied with the legend of the visit of Heracles to the centaur Pholos, the banquet, and the fight with the centaurs. If the restoration is correct, it will be seen that the sculptor, to obtain a centralizing group, and so to separate the frieze into artistically-balanced parts, has interjected in the centre a group of two sphinxes, who have nothing to do with the subject. He required artistic harmony at all cost. Clearly, he was contemporary with those early vase painters who were beginning to introduce human or half-human figures along with the animals which they had been trained to reproduce, and had not yet been able to abandon.

But Athens also has of late years furnished some interesting examples of archaic sculpture in relief, which suggest a comparison with the frieze of Assos. We refer to the remains of certain pediments or gables which appear to have decorated two small temples on the Acropolis. These sculptures are executed in stone (poros), and have been brightly, not to say staringly, painted with strong colours. That is to say, the sculptures themselves are brightly coloured, while the background against which they stand is left in the natural white colour of the stone, just as in the early vases the figures painted in black, purple, and white stand out against the natural red colour of the vase, or against a ground prepared by a creamy white slip. On one of these pediments (Fig. 64) the subjects represented have been

chosen from the labours of Heracles.¹ On the

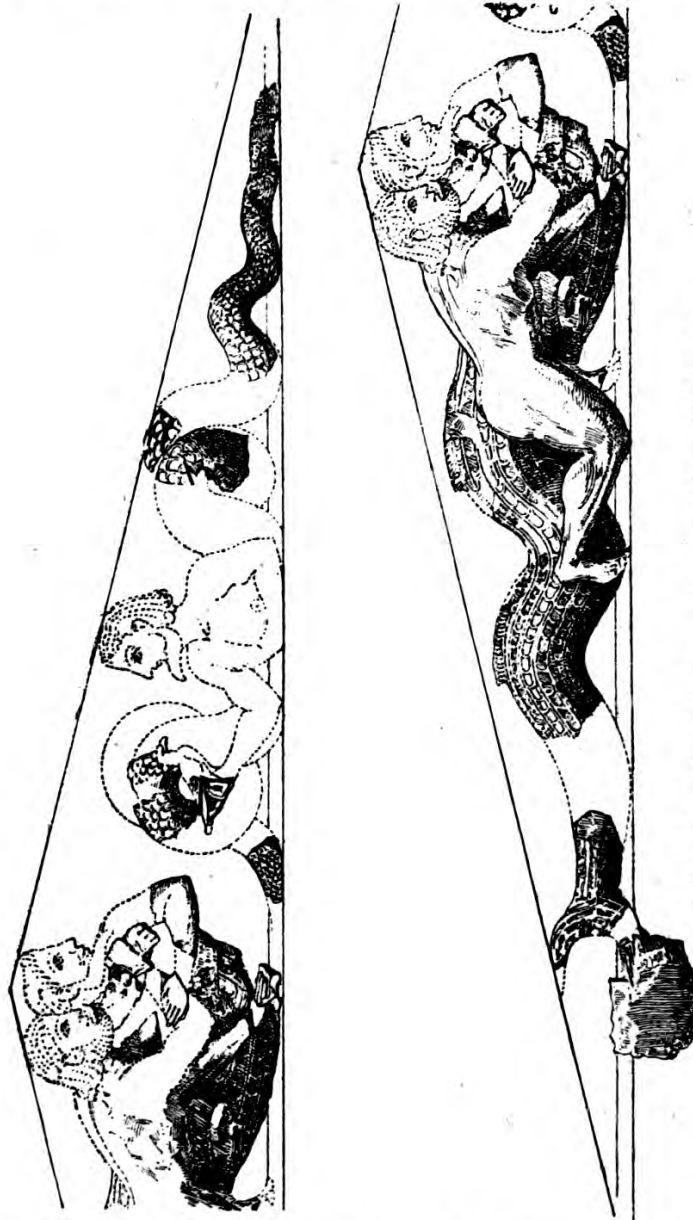


Fig. 64. Poros Pediment, Acropolis of Athens.

left he is seen wrestling with Nereus, very much as on the frieze of Assos, while on the right is a giant ending in the body of a serpent. On the other

¹ 'Mittheilungen d. Inst. Arch. Athen.,' x. p. 237. 'Ephemeris Arch.' 1884, Pl. 7, figs. 1 and 5, and 1885, p. 234; 'Mittheilungen d. Inst. Arch. Athen.,' xi. Pl. 2, p. 61.

pediment (Fig. 65), belonging to a second temple, the principal group seems to have been Zeus

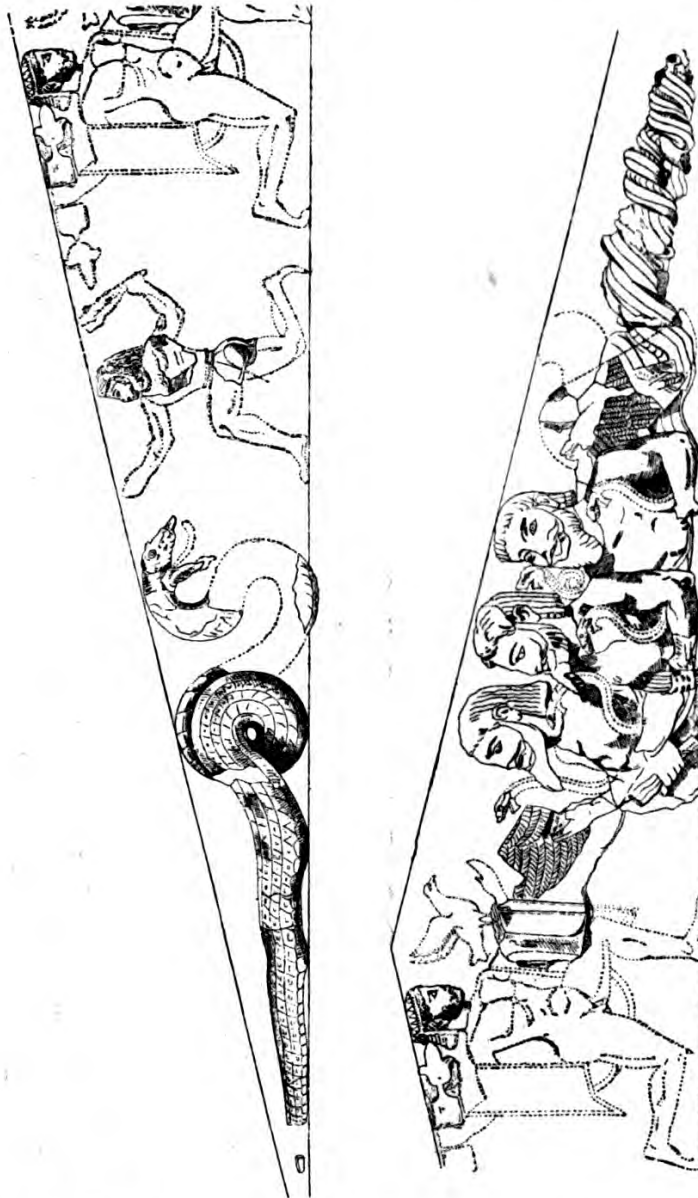


Fig. 65. Foros pediment, Acropolis of Athens.

slaying Typhon, who is figured as a long monster with three heads.¹ Back to back with Zeus is Heracles slaying some monster, whose body ended

¹ 'Mittheilungen d. Inst. Arch. Athen.,' xiv. (1889), Pls. 2-3, p. 74.



Fig. 66. Stelè of Aristocles.
Athens. (Warrior of Marathon.)

in a serpent, possibly Echidna. The beards of Typhon are painted bright blue. In the sculptures themselves there is a certain rude force which commands respect, while in the matter of composition an obvious success has been achieved in the choice and adaptation of figures suitable by their forms to occupy the peculiar shape of the angles of a pediment. In both pediments the movement is from the centre towards the angles, as opposed to the later form of composition at Ægina, on the Parthenon, and at Olympia, where the movement is towards the centre. The date of the sculpture can hardly be later than 650 B.C., and may be half a century earlier.

Archaic sculpture in relief reached its final and completed stage at Athens in the beautiful and brightly-coloured stelè, known as the warrior of Marathon (Fig. 66). Nowhere is the archaic love of minute detail in the structure of the bones of the

knees and toes, or in the folds and patterns of the costume, more charmingly preserved. According to the inscription, this stelè was the work of one Aristocles.

We pass now to the consideration of some instances of archaic sculpture in high relief. We had known from Pausanias (vi. 19, 3) that the city of Megara in Sicily had erected at Olympia one of those small temple-like buildings which they called treasuries. We had known also that the pediment of this treasury was adorned with a representation of a battle between gods and giants. In the excavations at Olympia some parts of this composition were recovered, just enough to illustrate the artistic style of the whole. It is to these fragments that we refer; the relief, as we have said, is higher than was hitherto known; the skilful rendering of the figures indicates a very marked advance on what we have hitherto been considering; they, in fact, form an admirable introduction to what we are next to expect under the influence first of high relief, and next of sculpture in the round, as applied to the pediments of temples.

First, then, we have the metopes from the oldest temple at Selinus in Sicily. These metopes are sculptured in very high relief, and this is true in one sense, but not in another. It is true in the sense that the figures project far from the background; but then these projecting parts are not sculptured with care, except on the face of them. The artist has, in fact, treated the face of his metopes exactly in the old manner of low flat relief, and has merely made it, so treated, stand well forward from the background. In one of the metopes he has obtained a bold effect; it represents a quadriga

standing to the front ; he has sculptured the fronts of his horses as if they were four pieces of flat relief, and he has brought them forward from the background to the extent which was required by the length of their bodies. A more interesting example, however, is the

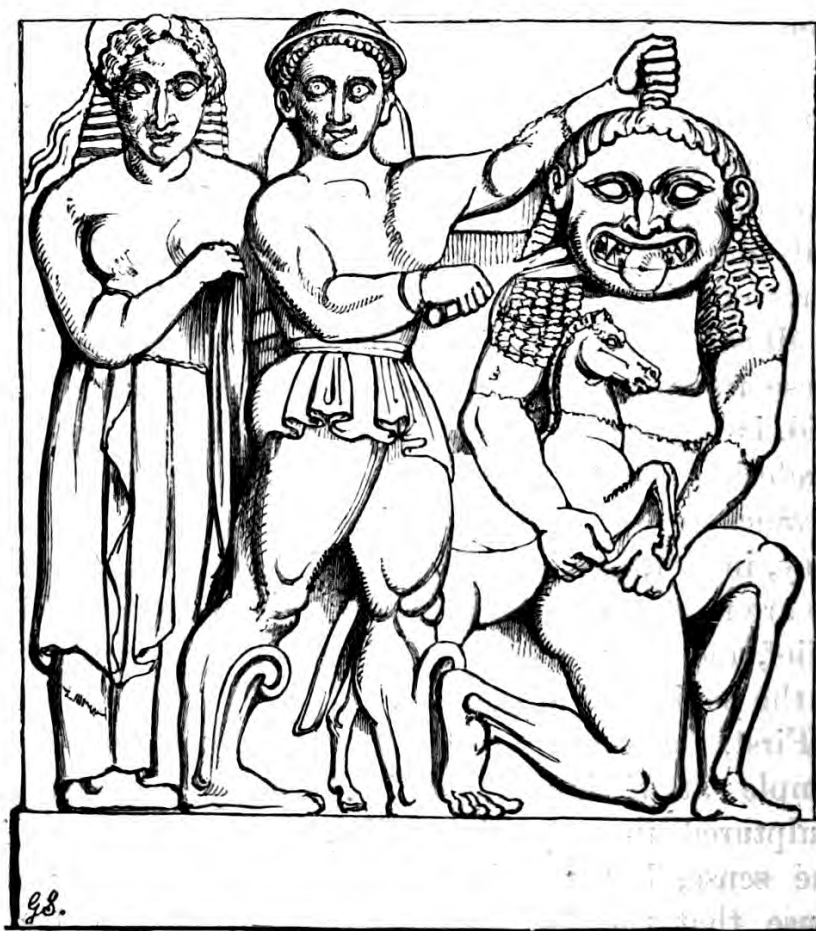


Fig. 67. Perseus cutting off head of Medusa. Metope of oldest temple at Selinus.

metope which represents Perseus cutting off the head of the Gorgon Medusa (Fig. 67). The difficulty and danger of the enterprise, requiring, as it did, the aid of Athenè to even so valiant a hero as Perseus, lay in

this: that any one seeing the face of Medusa was instantly turned to stone. It is not easy to understand how anyone should ever have wished to see a face so very unattractive. Still, that is the story. You will see that both Perseus and Athenè are careful to turn their heads round and look away, while the Gorgon seems equally anxious to show her face to them. These are points in the legends, and one forgets for the moment how aptly the sculptor has availed himself of them to turn all the faces full to the front, and thus gain the greatest possible extent of flat sculptured surface for his metope.

It will be observed that the winged horse, Pegasus, which did not spring from the neck of Medusa till after the head was removed, is already present in the group in the shape of a small foal. That is an instance of what is not uncommon in early Greek art. The sculptor supposed that he could tell two stages of an incident in one representation. In the metope of Perseus and Medusa the traditional method of working on the surface is even more conspicuous than in the quadriga metope; the figures are so grouped as to leave as little as possible of the background visible. The Athenè is turned full to the front, the Perseus nearly so, while the Medusa, falling on one knee and holding the Pegasus at her side, covers the greatest possible amount of background, and thus the whole composition presents a large surface, projecting well to the front, which the sculptor was not able to treat otherwise than in the traditional manner of low relief, notwithstanding that in realizing the scene his imagination has shown itself vigorous and truthful.

With the metope of Selinus may be compared the



Fig. 68. Lower part of column from the archaic temple of Diana, Ephesus. Dedicated by Croesos. [British Museum.]

fragmentary reliefs in marble which have survived from the archaic temple of Diana at Ephesus, the temple which, as we know from Herodotus (i. 79), owed most of its columns to the munificence of Cræsos. That temple had been set fire to by Herostratos, and only a few fragments now remain. They were discovered under the foundations of the later temple which was erected on the same site. In the later temple it was known that a number of the columns had been sculptured (*columnæ cælatae*) on the lowermost drum, if not higher up. But it has now been ascertained that the same had been the case in the older temple. Fig. 68 gives a restoration of part of one of these archaic columns containing the dedication of Cræsos, βα[σιλευς] Κρ[οῖσος] ἀνέ[θηκ]εν. The sculpture may therefore be dated some time previous to B.C. 560. Its close resemblance to the oldest Selinus metopes confirms the date arrived at for them.

A number of fragments were also found belonging to the cornice of this burnt temple, part of which has been by these means restored in the British Museum. The peculiarity of this cornice is that between the lions' heads (*λεοντοκέφαλοι*), which carried off the rain from the roof, the spaces were occupied by groups in low delicate relief. I have conjectured that the sculptor may have been Bupalos, the son of Archermos.

The tendency of Greek sculpture in Asia Minor was in these early times towards a certain voluptuousness which appeared in the richness of the costumes and the heaviness of expression in most of the faces. Nowhere are these characteristics more striking than in the well-known reliefs of the Harpy-tomb, of which we give here (Fig. 69) one slab, in which a young

warrior is handing over his armour to the god of the lower world, under whose chair is a bear; or the seated figure may be a Lycian king, for whom also the bear was an appropriate symbol.



Fig. 69. Slab of Harpy-tomb from Xanthos in Lycia. Brit. Mus. (Gr. Sculpt., 2nd ed., i. pl. 2.)

We have left behind the period in which art found those subjects the most agreeable where feeling and passion had passed over into action more or less violent, according to the general law "that



Centre of West Pediment, Olympia.

feeling passing a certain pitch habitually vents itself in bodily action." We have seen how the art of that period took its colour, so as to speak, from the stormy fighting times in which the artists lived, and how the constant delineation of large groups of figures engaged in violent action had led to technical skill in the rendering of the human form, its movements, armour and costume. We have reached now the stage when sculptors set to work to reconcile, as Hegel says, the inner with the outer life of man, his emotions and his thoughts with his bodily form; that is to say, the ideal stage such as we see it in the sculptures of the Parthenon.

Notice certain efforts which were made before precisely the right path to idealism was hit upon. The sculptures from the temple of Zeus at Olympia illustrate both the merits and defects of these efforts. We give here part of the west pediment (Pl. XIV.), observing that these sculptures though partly executed in the round, yet on the whole represent the principles of relief. Instead of minuteness of detail and faithfulness of observation, we have here a sort of defiance of these things; the proportions of a figure are often very far wrong, while the details of anatomy are treated with more or less of indifference. On the other hand, where archaic art had failed was in the masterly conception of the figure as a whole, and as organically free. Here the sculptors of Olympia won a grand success. They worked out a conception of the human figure the like of which had not been seen before in any age, or in any country, so noble and simple is it in its type. We have seen something of the same kind on the early red figure vases, contemporary with these sculptures, and it is

not too much to assume that both the vases and the sculptures had been deeply indebted to the great fresco painters of the day, of whom Polygnotos was the chief. The large scale on which the frescoes were painted, and the rapidity of execution necessary to the process of fresco, were conditions which could not but drive a painter of genius into largeness of conception and style with neglect of details. The sculptors of Olympia struck out in the same line with a large and noble conception of the figure; but they ought to have known that their art imposed no conditions of haste or rapidity of execution, and allowed no similar excuse for negligence of detail. Quite the contrary, the art of sculpture allows no negligence; at the same time there is this to be said, that the sculptures of the pediments of Olympia are in a great measure treated as a composition in relief, and not as a composition of figures in the round. This, and a free use of colour, brought about an artificial approach to the conditions of painting. We do not say that the sculptors intentionally deceived themselves in this. What they did was to evade the difficulty that faced them, and to cling to the older traditions of working in relief while abandoning its traditions of minuteness and faithfulness.

It may be interesting to notice here some of the principles of sculpture in relief as established by the practice of the Greeks. One of the most frequent terms in connection with sculpture in relief is the word "plane," by which is meant the thickness by which the objects represented are raised from the background. A relief has but one plane when the figures rest directly on the background. Experience has shown that it is not wise to go beyond two or

three planes superposed. But even this is hardly permissible if the sculpture is to be exposed to a strong direct light, because then the shadows cast by figures on one plane will fall on and confuse the figures on the plane behind, a thing which the Greeks constantly sought to avoid. The difficulty may be understood by imagining a man standing full to the front, with his arms folded on his breast. In a relief his arms will be in a plane nearer to the spectator than his body, and if they are sculptured in their full natural thickness they will cast heavy shadows on the body, and obscure many details of its form. But if the body is only presented in low relief, it is thus deprived of the compensating power of casting still heavier shadows on the background, and would thus be seen at an enormous disadvantage compared with the arms. It is therefore necessary to reduce the thickness of the arms in the same proportion as the thickness of the body is reduced. That was what the Greeks frequently did. But we may assume that they did not like it, because many of the attitudes of the figures in Greek reliefs have been chosen with a studied desire to get the arms extended in one manner or another away from the body, so that they may retain much of their natural thickness, or at all events, cease to disturb the body with their shadows. And it is thus interesting to see that what we often admire in the attitudes of Greek figures in relief, has originated in an endeavour to overcome a natural difficulty. Again, if we place a figure in profile in relief, his shoulder will be much nearer to us than his head. If treated naturally the head and shoulder will be on two different planes. To avoid this the projection of the shoulder ought to be reduced. But the Greeks frequently took another

course. They cut away the background behind the shoulder and the rest of the body, so that the figure presented its front on one plane towards the spectator, but gained its natural proportion of thickness backwards into the ground of the relief. Instances of this are to be seen on the frieze of the Mausoleum, and of the temple of Phigaleia, but apparently none on the Parthenon frieze. To prevent, then, the different parts of a composition from getting mixed and confused, each of them must have a general projection which will render it in some sort independent of the elements surrounding it or touching it. With this in view the Greek sculptors saw that it was necessary to keep down interior reliefs, and to attenuate within the contours everything that would come into collision with the effect of the contour, so that the light might glide easily over the surfaces, and the general outline of the figures or groups might detach itself with precision.

To turn now to the frieze of the Parthenon. Parts of it, as is well known, have been destroyed, other parts are still on the building, but have been worn and injured by the long action of weather. The remainder is in the British Museum, and is one of the chief glories of that institution (Pl. XV.). The meaning of the frieze was to represent a Panathenaic procession—one of those great spectacles with which the Athenians had become familiar at intervals of four years.

The immediate purpose of the ceremony was to accompany the victims, consisting of cows and sheep, which were to be sacrificed on the Acropolis to Athenè, the protecting goddess of the city. To give solemnity, beauty, and dignity to the event, all the resources of the city were called in. All classes of

PL. XV.



From the original. Alinari's Studio.

Stat. of piece of Parthenon - British Museum.

the community sent their best: rich men, their sons mounted on horses which vied with their riders in beauty and action; old men, whose aspect had withstood their years, came as witnesses to the merits of a careful and honourable life; maidens, whose grace of demeanour marked them out among their comrades, were there to attend the sacrifice.

What Pheidias had to do in those circumstances was in general terms to represent a compact procession advancing towards a place of sacrifice where was seated an assembly of deities; he had to arrange this procession round the four sides of a temple, confining it to a narrow frieze along the top of the cella wall. To obtain unity of effect, he adopted the conventionalism of giving in the main two views of the procession, almost as if it were being seen from both sides of the road as it advanced. As seen from each side the long line of procession advances towards the east front, with a movement which passes from the rapidity of horsemen and chariots to the slow pace of men and boys leading the victims as it approaches the front. Then we have some music from youths playing on flutes, and lyres; but it must have been low and faint. It seems to impart something like a notion of organic structure to the Parthenon, when we consider how an ancient Athenian, as he stood looking up at one of the long sides of the frieze, and knowing that the other half of the procession was sculptured on the opposite wall of the building, must have almost imagined the Parthenon itself to be included in the moving and stirring scene.

It was not, however, the meaning of the artist to represent exactly any one such procession. That would have resulted in a record more or less. He

had to conceive what might have before been, and what might in the future be, the marked features of such a procession, and out of these elements he had to compose an ideal which never would be literally accurate, but always would be spiritually true. He left out of his design one of the most picturesque and central features of the procession, the bringing of a new embroidered robe to the goddess, spread out like a sail on the mast of a boat mounted on wheels. Yet that celebrated incident of the new robe to Athenè is not lost sight of. On the contrary, it is but stripped of its picturesqueness. We are led to a point of time in the procession when the robe had been removed from the boat on wheels at the foot of the Acropolis, and had been carried up the Acropolis to the place where it is received by the priest and priestesses, while at a little distance advance with solemn mien the maidens who had woven and embroidered the robe. We now know from inscriptions found on the Acropolis that the maidens on the Parthenon frieze are those who had made the robe. They were known by the apparently archaic title of *ἐργαστίνας*, or workers, and to judge by their names belonged to the Eupatrid families. The inscriptions¹ state that the maidens had made the robe, that they had accompanied it in the procession in due order, and with a demeanour described as most beautiful and graceful, and that finally they subscribed for a silver vase to be dedicated to Athenè as a memorial of their

¹ See Köhler, 'Mittheilungen d. Inst. Arch. in Athen.,' viii. p. 61, who there publishes the inscription in Petworth House, Sussex, which I sent him. Since then another fragment has been found on the Acropolis, and is given by Foucart in the 'Bull. de Corr. Hellén.,' 1889, p. 170.

office. The maidens are therefore looking on at the last act of their office when the priest receives and examines the new robe as we see him doing in the very centre of all. The sculptor has placed this act immediately over the great entrance to the Parthenon, so that the whole movement of the frieze converges upon it from both sides. As it appears to us now, the incident may be thought to be wanting in centralising force, and perhaps it is due to this that innumerable differences of opinion have arisen in its interpretation. What we see is a graceful youth holding up a carefully folded robe to a dignified priest, who takes it from him at the moment when the head of the procession, with its victims for sacrifice, has arrived. But simple, and not very noticeable, as the incident is in itself, it is quietly and solemnly marked off from the rest of the procession. On each side of it is seated a line of gods and goddesses. It was apparently a moment of profound quiet. All the immediate surroundings indicate silence and awe.

We have thus seen the general nature of the procession which Pheidias was directed to sculpture on the Parthenon frieze, and we may now look at some of the difficulties that presented themselves, beginning with these same groups of deities. These deities were present only to the mind, but here they must be present to the sight. In a pictorial design it would be easy, with the aid of perspective and distance, to obtain an equivalent for invisibility to the eye by placing the gods away in the background (as in Fig. 70); but it is to be recollected that even painting had not in the time of Pheidias attained to the management of perspective, and that the sculptor of a bas-relief, limited to the dimensions of a long



Fig. 70. Naturalistic view of Panathenaic procession.

narrow frieze, was driven to the use of a conventional method of grouping. It was not necessary, however, for Pheidias to invent such a method. Before his time the practice had been resorted to, where the intervening presence of deities was required by a myth or legend, of placing the god or gods quite in the middle of the scene; if a battle, they were so placed that you would fear lest the weapons of the combatants should pierce them, as they would have done had the gods not been incorporeal. But the Greeks knew well that the gods were without substance or shadow, and they caught at once the meaning when they were so represented.

To the Greeks there was thus no unfamiliarity in the method adopted by Pheidias. He could not, in a narrow strip of relief, place his gods in the background, seated in a semicircle, as he doubtless conceived them. He could only, like his predecessors, place them among the mortals. He chose for their presence the central and culminating part of the ceremony. That we can understand; but he chose also to divide them into two groups. Mentally, there was every reason to keep them in one body; there was no division of council then, but on the contrary, a complete unanimity. He has made his division at the very point where, least of all, it could in reality have been possible; he has separated Athenè from her father Zeus, and has broken up the classic triad of Zeus, with Hera on one hand, and Athenè on the other. It must have been easy for the imagination of a Greek to see that no real separation was intended; he knew that neither distance nor substance concerned the gods. For moderns, however, this separation of the deities, and the interjection between them of the

peplos group have been a continual source of difficulty. Had the deities formed one compact body, and had the peplos group not existed at all, we should probably never have heard a word of surprise; the whole arrangement would have seemed so natural to modern notions. But clearly in our contentment we would have fallen short of that intelligence which Pheidias counted on among the Athenians.

By far the greater number of figures stand or move in profile, and thus present that aspect in which Zeus first fashioned mankind, according to the notion of Plato ('Sympos.' xv.), who compares the first figure of man with a relief in profile. Where a figure in the Parthenon frieze is turned more or less to the front, some special service is attached to it in the procession. But whether or not the mere fact of standing and moving in an upright attitude is one of the chief indications of man's superiority in the animate creation, we must admit it to be an attitude which lends itself admirably to bas-relief, especially so when it is taken in profile. In no other position does the figure present more of those sweeping elliptical lines which are vital to sculpture of every kind, but most of all to relief, and less of the circular and convex which are to be avoided. Whatever is circular and convex suggests instability, uncertainty. Whatever is elliptical and at the same time kept in low flat relief, suggests stability, simplicity, and dignity. These qualities lend a glory to the Parthenon frieze because of its fine elliptical lines, or lines which, if prolonged, would form ellipses.

Whether the figures are on horseback or on foot, their heads always reach the top of the frieze, and yet there is no visible distinction of scale among

them, unless in the case of the seated deities in the east frieze, who thus acquire a size appropriately greater than that of man. In a long narrow frieze, where a sense of continuity was of the utmost value, it was a manifest advantage to adopt the principle of keeping the heads of the figures all in one line, the principle of isocephalism. At the same time it is easy to see how dangerous this principle may become if we glance at any series of Roman triumphal reliefs. There the monotony is simply appalling in this respect.

Let us now take as an example of high relief one of the metopes of the Parthenon where a Lapith is

suffering severe pain from the grasp which a Centaur has made at his throat (Fig. 71). We have heard of the savage character of the Centaurs, and have been told that the Lapiths were of a race, endowed with simple



Fig. 71. Metope of Parthenon.

natures whose primitive function it was to subdue the more brutal elements of the world, represented by the Centaurs. It was essential, therefore, for the sculptor, to give the Lapiths simple and in a measure noble forms, though in that respect he has not succeeded in this particular metope to anything like the degree of his success in some of the others. But why, it may be asked, are the Lapiths always young in these metopes of the Parthenon and in Greek sculpture generally of the good time, while the Centaurs equally are always long-bearded and old. Apparently the intention was to bring out the contrast of a new or young race subduing and supplanting an older race. To the

ordinary fancy it must have seemed, at times, that some of the Lapiths ought to be old and some of the Centaurs young, as indeed they appear in later art. But had the sculptor of the Parthenon allowed himself this licence of fancy, the result would have been merely a record of *what* had been done by the Centaurs and Lapiths, or of what was believed to have been done by them, and less a record of *how* it was done. Herein lies the function of the artist, as Aristotle observed, to tell *how* things are done, not *what* things are done. In this metope, then, we have a young Lapith expressing, as far as we care to see it expressed, the pain which



Fig. 72. Metope of Parthenon.

he suffers; we see also on the face of the Centaur an acute sense of pain. Before passing away from this metope I would call your attention to the multitude of fine details of observation and thought which the sculptor has lavished on it and yet at the height at which the metope was placed

many of these details must have been lost, if it is possible for good work in detail ever to be lost so long as the composition as a whole is within view.

In the metopes of the Parthenon there are two distinct manners of treating relief, the difference consisting in the amount of light and shadow. The metope just described is a representation of one manner, where the greatest possible amount of light and shadow is attained. In those metopes where the other manner is displayed, we see that the figures of the Lapith and Centaur are massed together, so as to present as large and as broad a surface as possible to the light (Fig 72).

The shadow plays principally round the outer contours of the group. But this is not the case to the same degree with the other metope. There each limb has its true projection, its own light and shadow, and in this respect we must allow that the sculptor has been guided by a just consideration of the position of the metopes exposed as they were to the full light of day. Still there is an attraction in the other method, with its large massing of surface. It admits of softening and toning down the action, if it does nothing more. It exposes to the light a large surface capable of being modelled so as to give a sunny effect of light. It is high relief in a true sense, whereas the opposed principle resembles more nearly sculpture in the round.

We will take next the frieze of Phigaleia (British Museum). It has been generally thought on fairly reasonable grounds that this frieze was the work of Ictinos, one of the architects of the Parthenon, and the custom was to pass over its roughness as merely the consequence of his not being exclusively a sculptor. With the sculptures of Olympia before us, that is no longer possible. For it cannot be denied that, in the frieze of Phigaleia we have just the same large, noble forms as at Olympia. There is, of course, far more workmanship in the frieze, and though it is nearly confined to the draperies, we are thankful so far, because, hard as the draperies are, they yet abound in really effective and careful work. The types of face and form are large, simple, and without any refinements of detail. There is no expression in the faces except the reserved, almost stolid, expression of a fine natural type of being. In regard to its effect as a whole, the Phigaleian frieze has this disadvantage, that in a number of the slabs

the joints had been anciently cut down to such an extent that there is now none of the space between them which originally formed part of the design. Clearly the frieze had been made too long for the space which it was to occupy, a fact which does not speak well for Ictinos in his combined profession of architect and sculptor.

The subject of one half of the frieze is a battle between Greeks and Amazons; the subject of the other half is the attack made by the Centaurs on the Lapiths (Fig. 73). The composition is in parts too crowded for relief where the figures have so much projection. On the other hand, we have to remember that this frieze was placed within the temple, and in such a position as to be well exposed to the light from the open roof, in which case the composition would be much clearer than it seems to us now. The artist had a horror of vacant background, and at times he will fill up a space with an end of drapery, the movement of which is contrary to the movement of the figure who wears it. Such feats add to the obscurity of his design. Then, again, it will be noticed that he seems to avoid as far as possible placing any of his nude figures clear and decisive against the background. He prefers to break the outlines of such figures by pieces of drapery here and there between them and the field of the slab, no matter whether the direction he thus gives to the drapery is quite opposed to the action of the figures. One would say that he must have had some of the instincts of a colourist to have been thus so careful in withdrawing his outlines from attention. Such, at all events, was the tendency of his practice. We may say also that, though as a rule the attitudes of his figures are such as to present a



Fig. 73. Slab from frieze of Phigalicia. British Museum.

minimum of that crossing of the arms over the body, and the consequent casting of confusing shadows, which is above all to be avoided in relief, yet the instances in which he sins against this principle are numerous enough to suggest that he was not fully



Fig. 74. Slab from balustrade round the temple of Wingless Victory, Athens.

acquainted with it, but followed it rather as a matter of tradition.

In the frieze of the temple of Wingless Victory at Athens, several of the most striking groups are identical in composition with groups in the Phigaleian

frieze. But in the Athenian examples there is a singular refinement which is lacking at Phigaleia. It is instructive to compare these groups in detail. The reliefs of the balustrade round the temple of Victory represent the goddess of Victory in attitudes and actions appropriate to a great ceremony of sacrifice. Fig. 74 is the best of them. The gracefulness of the action and the expression of sentiment which is conveyed by the contrast of the bodily forms and the draperies tell of a later and more advanced period than that of the frieze of the temple.

Our next landmark in the history of sculpture in relief is (Fig. 75) the frieze of the Mausoleum at Halicarnassos, (British Museum). The subject is continuous, and represents a battle of Greeks and Amazons. That had been a familiar subject in Greek art for some time, and we are prepared to find on the Mausoleum motives which had been in use before. But while this is the case, what really strikes us most is the invention of new motives in this frieze. Some of them occur again nowhere else in ancient art, so far as I am aware. Take as examples the Amazon who has thrown herself round on the back of her horse; or take her comrade, who, with her back turned to the spectator, stands in a vigorous attitude of combat; or the Amazon who bends down at the further side of her horse's neck to reach an enemy. These and other motives that could be cited do not belong to the class of variations on well-known themes which a cultivated artist is expected to produce. They are freshly created out of the circumstances, and belong to the province of genius. It should be observed that these motives occur on slabs which were found by Sir Charles

Newton on the east side of the Mausoleum, and that it was the east side which was assigned to Scopas, according to the statement preserved by Pliny. What then shall we say of it in comparison with the frieze of the Parthenon? From a technical point of view the relief has become higher and rounder, so that the limbs are presented with nearly the full rotundity of nature, while the body still appears mostly in front view and with only a part of its natural thickness. One is inclined to ask why a sculptor of so much skill allowed himself to thus mix up two separate principles—approaching to realism in the limbs of his figure and adhering to a conventional treatment in the body. We are apt to think that an artist has certain obligations to Nature, and that if he follows her in one part, he must follow her throughout. We have been so long accustomed to see artists studying from Nature that we have got to look on them as in some way her servants, as if they only existed to attend to her, while in fact their business is with slabs or blocks of marble, with pieces of clay, with colours and brushes. They must acquire the knowledge which has been gradually accumulated by their profession, before they go to Nature, if ever they go.

In the Mausoleum frieze, then, we have a fertility in the invention of incident and in bringing before us unexpected attitudes and groupings, we have a rhythmical movement in the composition, and a slight advance towards realism. The background of the relief shelves away from near the upper edge to just the extent which is required to enable the sculptor to bring the head of a figure moving in profile forward into nearly the same plane with his shoulder. He can thus give the full extent of round-

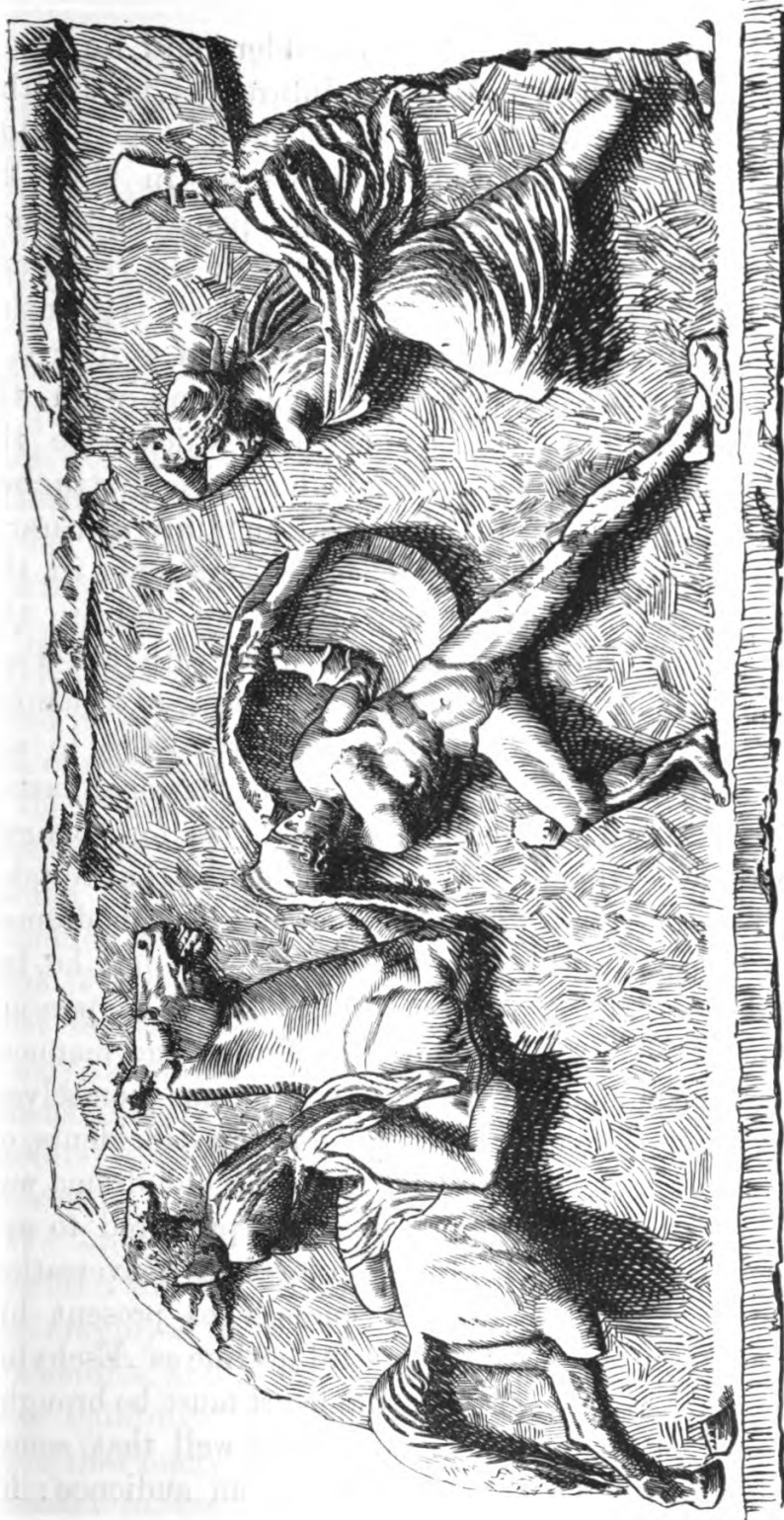


Fig. 75. Slab from frieze of Mausoleum, Halicarnassos. British Museum.

ness to both the head and the shoulders, and he avoids the difficulty which in older sculpture was met either by greatly reducing the projection of the shoulder and arm facing the spectator, as we see in the Phigaleian frieze, where the habit is of frequent occurrence, or placing a figure with the body full to the front and the head turned in three-quarter face. In other instances of that frieze, where the head of a figure is brought forward to be in the same plane with the body, the back of it is not finished, in which case the head would stand out quite free, but is left attached to the field of relief in a somewhat ungainly manner.

But now as to the difference of sentiment in the conception and composition which we find in the frieze of the Mausoleum as compared with the Parthenon. It is the practice in such cases to consider contemporary literature, in particular poetry, to see whether it does not reflect changes in national tastes and aspirations calculated to prepare us for changes in artistic sentiment. We have no choice but to take Euripides. He also drew the characters of his dramas from the old world of myth and legend; but he insisted on their appearing on the stage as persons endowed with just the same gifts of mind and manners as were common among the spectators themselves. The stately language in which ordinary incidents, or matters of fact, were announced in the old drama was to him stilted and oppressive; he preferred to approach as nearly as possible the level of conversation in such cases. It was not enough to present his characters in simple and powerful outline as Æschylus had done; every emotion of the heart must be brought out and played upon. Yet he knew well that something more was needed to sustain an audience: he

saw that curiosity must be kept awake. And here his fertility in the invention of intrigue, and in bringing about the unexpected, rendered him good service. We have in him these three elements: first, a splendid fertility in the invention of incidents and in bringing about the unexpected in comparatively small matters; secondly, a profusion and exuberance of the lyric faculty; and, thirdly, a greater power in the presentation of individual figures than in making them work together for one constructive end.

Returning to the Mausoleum frieze, it will be admitted that the invention of motives to which we have referred is not without analogy to the fertility of Euripides in the invention of incident.

Hitherto we have discussed bas-relief only as it is found in long narrow friezes employed for the decoration of public buildings. But it had other uses, some of them not without interest. There is, for example, the class of sculptured monuments to the dead, which abound in Athens, and of which there are familiar examples in most museums. Lest anyone should think it to have been beneath the dignity of a great artist to have sculptured a monument of this kind, it may be stated that there was one to be seen at Athens from the hand of Praxiteles. It represented a soldier standing beside his horse. That is all we know of it.

We are told, that under the administration of Pericles a whole army of artists and artistic workmen were employed on public buildings under the direction of Pheidias, and if we ask what came of them when these buildings were finished, we shall have to conclude that many at least of them had continued to be occupied in the production of bas-reliefs for tomb-

stones, with occasional employment on such public work as the frieze of Erechtheum.

We have the famous speech of Pericles (Thucyd. ii. 35), when in a common grave at Athens and with much ceremony those were buried who had fallen in war. Not once does he single out any particular act of bravery. He draws no scene of the battle-field. He concentrates every effort on a picture of the general life of the state which had made those men who had fallen the brave men they were, and which they in their turn had helped forward. In most of the Greek tombstones we have this same appeal to the imagination and the affections; rarely, if ever, an appeal to any particular fact or recollection, however much any such fact or recollection might touch the affections alone (compare Fig. 95). As a rule, there is no approach to strong emotion in these reliefs. But there is one class of them in which we find something of that nature. A relief such as we speak of represents a youth standing easily before an old man who regards him attentively. So far there is only, so to speak, an air of sadness in the group. But behind the youth there sits crouching on the ground the slave boy who used to attend him to the bath and palæstra, thinking it all the world to be with his young master. Now the poor boy is desolate, and literally doubled up with grief. He is made even smaller than nature, so as to render him, as I suppose, more pitiable, yet all the while the two principal figures take no notice of him. Thus, it was not absolutely prohibited to Greek sculptors of the good time to express strong emotion in a lower class of being, if only the being in question was kept in his proper place; and in connection with this it is a significant fact that in the daily life of

the Greeks it was the custom, in cases of bereavement, to hire women to wail and beat their breasts and tear their hair. Yet behind all this who can suppose but that the bereaved persons also beat their breasts in secret?

Then again we have the class of bronze reliefs



Fig. 76. Victory slaying an ox. Relief in bronze on a mirror-case. From *Corinth*. British Museum.
Ht. $4\frac{3}{4}$ in.

which served for the decoration of articles of luxury, if not also of utility. These, it is clear, represent a very extensive activity among the Greek artists, particularly during the 4th cent. B.C. Fig. 76, representing Victory slaying an ox, is an excellent example. We can see from the frequency with which this particular conception was reproduced in later art on terra-cotta panels and

engraved gems how much it had attracted Greek taste. Fig. 77 reproduces the relief on the outside of a bronze mirror-case in the British Museum, which, as we have already seen, has also a fine piece of drawing incised on the inside (Fig. 54). The meaning of the group is clear in a general way. It is a love scene of some kind, or we should not have a winged Eros present. To wear a shawl in the fashion of the central figure was with the Greeks a sign of married life; or at least, when a Greek wished expressly to indicate a married woman, he gave her this veil over the back of her head. The central figure, therefore, is the wife of some one. The female figure who stands away to the right is clearly horrified, from her movement and the action of her hands. But what is there to horrify her in a wife taking down her veil? Yes, but Eros is present to help her. More than that, with both hands she pushes away the sides of the shawl. It is this combination of actions that frightens her companion.

It has been suggested that the bronze may represent Danaë in the brazen chamber, receiving the shower of gold. On the painted vases we see Danaë holding up her robe in this fashion; but there was no occasion, we suppose, for the horror of her attendant, if she had one. Another possible explanation is to be found in the *Hippolytos* of Euripides. In that drama Phædra, who has become the wife of Theseus in Athens, is cursed with a love for her stepson, Hippolytos. She falls into melancholy. No one can understand what is the matter. She throws physic to the dogs. At last her nurse suspects the secret, and openly charges her with it. Then comes the dreadful confession, at which the nurse is aghast. The subject has been often rendered in ancient art, and in most

cases the nurse is a prominent figure as an old woman. On our bronze the horrified figure is clearly a young woman. It is there that the difficulty of explanation comes in. If this figure is not the nurse, we ought



Fig. 77. Bronze relief on mirror-case. From *Corinth*. Brit. Mus.
Dia. $7\frac{1}{4}$ in.

to look for some other explanation. But we are entitled to throw over the nurse if we like, because Phædra reveals her passion not only to the nurse, but also to her women attendants. Quite possibly one of these attendants is represented on our bronze by the

horrified figure. On a marble urn in the British Museum with this same subject, a youthful attendant is present as well as the aged nurse.

As regards the composition of the group, it has escaped from the formality, balance, and responion of one figure to another which characterised archaic art; still more is it free from the archaic bending, stooping, and contorting of figures to adapt them to a circular surface. But while it is easy to point out the faults of older times from which our bronze is free, it is difficult to describe its beauties except by appealing to the largeness of style in the forms, the exquisite rendering of the draperies, the fine touches of observation, as in the slipped-down sleeve of the central figure, the conception of the figure of Eros as that of an accessory in the design, a passion which at the final moment takes form and comes on wings unseen.

When considering the archaic bronze of Athenè (Fig. 61), we saw that the figure consisted of two reliefs placed back to back, each representing one side of the goddess. Here, in Fig. 78, we have again two reliefs which, were they placed back to back, would make one figure of Athenè. Instead of that, we have apparently two Athenès confronting each other. The idea seems absurd: nor can such strict balancing of one figure against another be regarded as attractive in art. Surely there must have been in the mind of the artist a belief that the spectator would at once see that the one figure is but a reflection of the other, not perhaps inappropriate on a mirror-case.

Passing over a number of bronzes of this class in the British Museum which well deserve some attention, we will notice only the bronzes of Siris. That is the

name which for many years has attached to two bronze reliefs said to have been found near the river Siris in Southern Italy in 1820.¹ It was in this locality that the memorable battle occurred in which



Fig. 78. Bronze relief on mirror-case. Brit. Mus.
Dia. 7½ in.

Pyrrhus was signally defeated. The wish to connect everything beautiful or remarkable with some famous

¹ Michaelis, in Lützw's 'Zeitschrift für bildende Kunst,' xiv. 1879, p. 27, calls this provenance an invention of the Neapolitan dealer who sold the bronzes to Brönsted.

person, produced the suggestion that these bronzes may have belonged to the armour worn by Pyrrhus on that day. The suggestion was enticing, and not much worse if so bad as many others. If Alexander the Great had been suggested, that would have been nearer the mark as to time.

These bronzes, as will be seen from the engraving of one of them (Fig. 79), had been attached by hinges on the upper edge, possibly to a cuirass. In both groups we have the same subject, a Greek overpowering an Amazon in battle, the figures in the one group being reversed from the other, so as to form companion groups, such as would be needed on the shoulders of a cuirass. One thing to be noticed is what appears to be a very fine balance of draped and nude forms, especially in the left hand group. In the other (Fig. 79), there is rather an excess of nude form. In both groups the Greek warrior is nude, but that does not prevent the artist from making use of drapery as a foil to the nude forms. The Greeks have each their chlamys, which in the combat has flown loose except for an end of it, which is twisted round the left arm. The rest of the chlamys floats behind the figure, and is very skilfully used to introduce contrasts of fine folds here and there as a background hard against the nude forms, which otherwise would be too statuesque perhaps. We do not profess to be able to analyse the charm of the subtle thoughts of the artist. It is enough to enjoy them. But it is easy to compare the two groups in this respect, and to see how the greater display of drapery as a background in the left hand group, as compared with the other, affects the composition; we must not say favourably or the reverse, because both have their charms. All we can say is, that the one



Fig. 79. One of the bronzes of Siris. Brit. Mus.
Ht. $6\frac{3}{4}$ in.

is more suggestive of a painter's method, the other of a sculptor's.

From a technical point of view these bronzes are no less than marvellous as examples of repoussé work. The quality of the bronze must have been originally fine beyond all praise or comparison, to admit of being hammered up to the extraordinary extent which it reaches in the chests and faces of the Greeks. In some points it has failed, and separate pieces have been made and attached in their place. Then again the minuteness with which the whole surface has afterwards been gone over is endless, incising elaborate patterns on the shields, working up the beards into almost microscopic faithfulness, and yet, with perfect freedom of touch, following the minutest folds of the drapery, from their origin to their final disappearance into some other larger fold or into airy nothingness. These are facts which suit no Greek sculptor of whose practice we know from ancient writers better than Lysippos. He was famed for a combination of minute finish and a vigorous system of proportions. He was the most prominent sculptor at the time at which from other considerations we should place these bronzes, and without claiming him as the sculptor of them, we may yet fairly regard them as influenced by his manner, as in fact among the best illustrations we possess of his special method of working. He was a sculptor in bronze above all things.

The development of Greek bas-relief after the death of Alexander the Great, while maintaining the traditional ideal manner, as in reliefs of the kind illustrated by Fig. 80, showed also a tendency towards realism, retaining such of the old ideals as had become stereotyped, so to speak, about the beginning of the

4th cent. B.C. Ideal Satyrs, Bacchantes, Centaurs and Cupids continued to be employed, but they were



Fig. 80. Relief in marble. From the great theatre, Athens.

put to new uses. We see them engaged in scenes of daily life, such as Satyrs filling a basket of grapes or

standing on tiptoe to drink from the lip of a large vase (Fig. 81). The tendency to represent natural scenes was not strong enough to drive the sculptors to cast aside altogether the traditional ideal forms. Yet they ought to have known that these forms of Satyrs, Bacchantes, and Cupids had originally been created as ideals founded on natural observation. They ought to have seen that what they were now doing was



Fig. 81. Terra-cotta panel. Brit. Mus.

attempting to separate the two original elements out of which these figures had been composed—ideal conception and actual observation of nature. The attempt was absurd, because if our imagination can recognise in the ideal form and movement of a Satyr the whole story of the vine, the vintage, the mirth of the winepress, and the generous effects of wine on mankind, it is doing a thing twice over for an artist to exhibit Satyrs engaged in these occupations. If he

cares to represent such scenes, he should take human beings as the actors in them.

To illustrate this stage we have abundance of material in the engraved gems, in some of the frescoes of Pompeii, and in a considerable series of terra-cotta panels with reliefs which had been employed as mural decorations for Roman palaces from the 3rd to the 1st cent. B.C., and had thus helped to constitute that Rome of clay which the Emperor Augustus transformed into a Rome of marble. Among these panels will often be observed figures and compositions treated in imitation of the archaic Greek manner as regards form, but missing its true spirit; and these instances of archaism occurring side by side with the reproduction of the styles and types of the most fully-developed kind, show that this age was not a simple growth out of the preceding age. All the past ages were its prey, so far as they furnished designs suitable for the decorative purposes it had most at heart. The patronage of art had passed into the hands of wealthy men, whose wish was to be surrounded in their life time with richly-sculptured vases of silver or marble; and at their death to be consigned to magnificent sarcophagi, of which few can have surpassed or even rivalled in sculptured beauty those now in the museum at Constantinople.

A further characteristic of the Hellenistic age which we are now considering was the universal pride that was taken in great festal processions through the streets of such towns as Alexandria. One of the features of these processions was to represent or enact scenes from the old myths, especially the myth of Dionysos with his Satyrs and Sileni. In most cases there was an extravagant display of works of sculpture, but the subjects generally, whether in

bas-relief or in the round, rarely went beyond the region of Satyrs and Sileni, except to introduce such vague personifications as those of Day and Night, Earth and Sky. Such, at least, is what we gather from the ancient descriptions of these scenes, in particular from what appears to have been the best of them—the *fésta* prepared by Antiochus Epiphanes for the Roman General, Aemilius Paulus. Clearly the governing and impelling force behind all these efforts was the desire to realise vividly some scene of public importance. But at every step this desire was held down by tradition; it was chained to the old Satyrs and Sileni, the old abstract personifications. And thus sculpture in relief attracted to a profitable business, gave up, so far, any chance it may have had of developing some new line of observation.

CHAPTER VII.

STATUARY.

Ἐπὶ μὲν τοίνυν ἐπῶν ποιήσει Ὀμηρον ἔγωγε μάλιστα τεθαύμακα, ἐπὶ δὲ διθυράμβῳ Μελανιππίδην, ἐπὶ δὲ τραγωδία Σοφοκλέα, ἐπὶ δὲ ἀνδριαντοποιίᾳ Πολύκλειτον, ἐπὶ δὲ ζωγραφίᾳ Ζεῦξιν. ΧΕΝΟΡΗΘΝ, *Memorabilia*, i. 4. 3.

A STATUE has certain advantages over sculpture in relief and over painting. It can show us a man in every one of his dimensions, in thickness as well as in height, and even in solid weight if that were desired. In a painting, we cannot see both the back and the face of a man. We can only have one view of him, and that the view which the painter has chosen. A painter or a sculptor in relief sets out with a clear admission of the limits imposed on him in this respect, and he has the consolation that we do not in general desire to see the backs of his figures. So far a picture of a man, or a bas-relief of him, fascinates us more readily than a statue; and doubtless it was for this among other reasons that in antiquity the sculpture of statues was comparatively late in coming into the field.

But with its opportunities of attaining absolute faithfulness, the art of statuary had on this very account enormous difficulties to overcome. It had two opposite forces to reconcile. A sense of realism required the statue to be equally true to nature all

round. A sense of art said plainly that there was one view of the figure—the front view—which surpassed all others in beauty. That was the force of idealism. In approaching the study of Greek sculpture, we have to bear in mind that this was the great problem it had to solve: to reconcile these two opposing claims of absolute realism and arbitrary idealism. It is not denied that in painting and in sculpture in relief there had been times when this problem pressed upon the artists, and largely modified their conceptions, But it fell with full force on statuary alone.

During the early ages of art, there had been a long training in working in relief which had given a preponderance to the ideal manner, such as it was. But no sooner had the time come when the realities of human form began to be fused with an ideal conception of them, than a new possibility forced itself on the sculptors. It began to be seen that there was an inner as well as an outer life in man which had to be taken into account. The problem then took the complex form of reconciling an artistic ideal with the actual realities of bodily form and natural passions. It would not be difficult to select a number of examples from Greek sculpture, to illustrate these leading stages in its development. But while this will be our main purpose in the following sketch, we have also to bear in mind the necessity of explaining, as we go on, the changes in technical and other matters on which much depended for the retarding or forwarding of new principles and new impulses. For a while, indeed, it will be chiefly with changes of this kind that we shall have to deal.

We begin with the bronze bust Fig. 82. Strictly speaking, it is not Greek. It was found in an

Etruscan tomb and no doubt is of Etruscan workmanship prior to 600 B.C. But at that time Etruria



Fig. 82. Bronze bust. Polledrara tomb, Vulci. Brit. Mus.¹

and Greece had so much in common in matters of art, or, at least of artistic processes, that what

¹ Hist. Gr. Sculpt., 2nd ed., i. p. 85.

was true of the one country was true also of the other. Besides, the process by which this bust had been produced, answers exactly to the literary records we possess of the oldest statuary of bronze in Greece. The bust is made of thin plates of bronze hammered up into some approach to human form and then fastened together with pins or nails, so as to form a complete bust. There was in Greece a statue made in this manner which Pausanias saw and described, calling it the oldest statue he knew of. So also at Olympia there was a famous colossal figure of gold made by this process at the expense of the ruling family of Corinth, the Kypselidæ, in the early part of the 7th cent. B.C.

Therefore failing remains of Greek sculpture from Greece itself we are justified in using as an illustration this contemporary bust from Etruria. In one respect it is not a good illustration. We mean the fact of its being a bust. The ordinary belief is that the Greeks did not sculpture busts till at a late period of their art, till the time of Alexander the Great and thereafter. We may take that as next to certain. The idea of our Etruscan bust appears to have been derived from a class of vases which the Phœnicians were fond of, tall cylindrical vases finishing at the top in the form of a bust of their goddess Astartè or Aphroditè. In this same tomb with the bust we are now describing were found two such vases in alabaster, which clearly had been imported from some place where Phœnician influence was powerful. At all events our bronze illustrates the earliest process of statuary among the Greeks when as yet casting was unknown.

According to tradition bronze casting was invented

or introduced in Greece towards the beginning of the 6th cent. B.C. No doubt casting had been practised long before then in Assyria and Egypt, at least casting solid. In the British Museum are bronze statuettes from Assyria cast solid and bearing inscriptions which place their date at about 2250 years B.C. Possibly there are examples from Egypt also of a similarly high antiquity. But what we have to do with is hollow casting. With this invention the names of two sculptors were always associated, Theodoros and Rhœcos of Samos, of whom it was also said that they had studied their art in Egypt. We now know, thanks to recent excavations, that where they studied was among the Greek settlers at Naucratis in Egypt. The name Rhœcos has been found there inscribed on a vase, and though it is not necessarily the very name of the sculptor, it is nevertheless to all appearance the name of some one from the same locality of Samos at that time. Diodorus Siculus (i. 98) describes a specimen of casting by Theodoros and Rhœcos in the form of a statue of Apollo in Samos, and claims the invention of the method for the old Egyptians. He says first that the statue was made in two parts, the one part being cast in Samos, the other in Ephesus, which is not far away. The two parts fitted together so well that one would suppose the whole figure to have been made by one man. He thinks that very curious. Then he goes on to say that the two halves were taken vertically from the top down to the legs, that is to say, each part consisted of a leg and half the torso. It was a rational way of dividing a figure for the purposes of casting, if one could only understand the motive. The only explanation we can suggest is that the statue, being, as it is described, one of those archaic sym-

metrical figures of Apollo, in which the right half reproduces the left in a reversed fashion, there was some temptation to model one half and to reverse the model for the other half. But clearly the statue was considered a curiosity of technical skill, and perhaps we should not inquire too closely into the description of it. It is to be presumed that the two parts of this wonderful statue had been brazed together by a solder. That was a process which had been invented some time before by an artist named Glaukos of Chios. The invention coming as it did before casting was known, was hailed as an extraordinary advance on the old cumbersome method of fastening the parts together by pins or rivets, as in our Etruscan bust, and in numbers of archaic bronze vases.

To the time of Theodoros and Rhoecos appears to have belonged a great bronze vase which was placed in the temple of Hera in Samos (Herodotus, iv. 152). Under the vase was a stand formed of three figures resting on their knees, which figures were each $10\frac{1}{2}$ feet high. The whole had been a present from the owners of a merchant-ship which had gone to the north coast of Africa and had been carried by a favourable wind outside the Mediterranean beyond the pillars of Hercules, that is the straits of Gibraltar, to Tartessos in Spain, whence they returned with a cargo which proved a fortune to them; probably a cargo of precious metals from the mines there. It is a proof of the early date at which these mines were worked, and a proof also that till then these mines were little known to the Greeks. In speaking of the three figures which formed the stand of the vase, Herodotus calls them "colossi." We also should call a statue $10\frac{1}{2}$ feet "colossal." But we have become used to the word.

The difficulty is to find out where Herodotus got it. He uses it repeatedly in speaking of the huge statues which he saw in Egypt, and one might suppose that he had found the word "colossus" in use among the Greeks in Egypt with whom he visited, possibly the Carians. It never became a regular word in the best Greek. We must assume it had some outlandish origin.

Another point in connection with these three colossal figures is that they were sculptured in a kneeling posture. In archaic Greek art, especially in quarters where it was influenced by the Phoenicians and Egyptians, it is common enough to find terracotta statuettes in this posture which have all the appearance of reduced copies from colossal figures. Small as they are, they retain a certain hugeness of aspect which is not altogether grossness, but has something of style in it as well. We can imagine, then, that the stand of the Samian vase was made of three such kneeling figures set more or less back to back, and that Herodotus in calling them colossi may have been guided partly by their Egyptian aspect, partly by their size, which after all was considerable. In these circumstances we may fairly claim this vase as the work of men who had been trained in Egypt, like Theodoros and Rhœcos.

Pausanias, speaking of the statue of an athlete at Olympia, the date of which was 568 B.C., says, "the feet are hardly separated one from the other, the hands fall by their sides, reaching down the thighs." It is easy for us under the subsequent light of art to see how stiff and ungainly such a figure would be. But while the attitude of the figure was no doubt chargeable in this way, we are

prepared to believe that there had been bestowed upon it at the same time much beauty in the details, such as the eyes, mouth, and chin, the bones of the knees, hands, and feet. We acquire this belief from certain very archaic statues in marble which have survived. These statues fall into a regular series, beginning with the very elementary degree of skill exhibited in the Apollo of Orchomenos, passing with only a slight

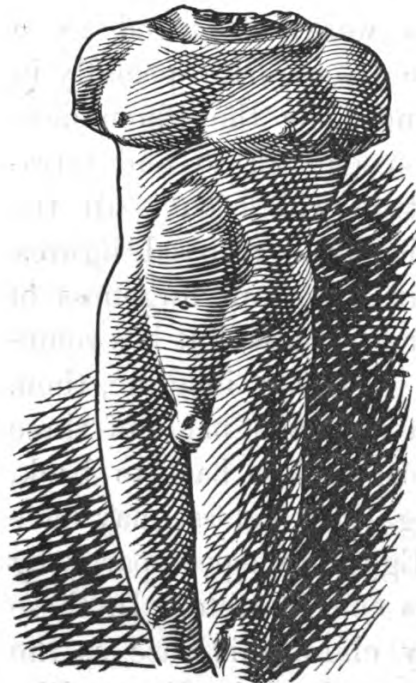


Fig. 83. Marble torso from Marion, Cyprus. Brit. Mus.

step to the Apollo of Acraephnia, or the Apollo from Marion in Cyprus (Fig. 83), to the Strangford Apollo, and finally to the Apollo of Tenea in which the bones, muscles, skin, and in general all the details of anatomy, have been studied from nature and carefully executed, while at the same time no effort has been made to give the whole figure vitality and movement.

We take note of the admirable effect this early apprenticeship of diligent and faithful attention to detail must have had on the later art of Greece. As regards want of vitality there is this consideration. The statue from Cyprus was found outside a tomb and had been made to serve as a funeral monument, just as the Apollo of Tenea is known to have been. Very suitable to the circumstances was a figure in which a minimum

of vitality was expressed. At this point we may take the marble statue of Hera, found in Samos, and now in the Louvre (Fig. 84). It is of that perpendicular style which the Greeks called a plank, *στυλῆς*. It may represent that image of Hera at Samos, which



Fig. 84. Hera of Samos. Louvre.



Fig. 85. Nikè of Archermos. Athens.

preceded the statue by Smilis, the contemporary of Dædalos (Paus. vii. 4, 5).

It is said that the first sculptors in Greece who distinguished themselves in working in marble were a family of Chios descended from the sculptor Melas. In the next generation we have Mikkiades and Archermos, whose skill is attested by the marble

statue of Nikè (Fig. 85), which was discovered a few years ago in the island of Delos with its pedestal, on which are written the names of the two brothers Mikkiades and Archermos.¹ She is represented as moving sideways, but with the face and upper part of the body turned to the front. The workmanship is delicate and refined, but for the most part the delicacy and refinement are limited by formality and conventionalism, as may best be seen by the treatment of the hair with its fine formal curls. Doubtless it was the fashion then for ladies to wear their hair in some such artificial arrangement; but still it is possible for an artist to render artificial fashions of that kind in an artistically free manner, if it is in his power to work with freedom at all. It is not, however, only in the hair but also in the movement and drapery of the Victory that we see the formal restraint under which the sculptors were labouring. In particular it is to be noted that in the movement of the Victory which is to the left with the right leg advanced, the left leg comes forward so as to form a nearer plane and gives the statue the aspect as of a relief with two planes. The drapery is treated in the manner of a relief, and indeed the general attitude of the figure, presenting its greatest surface full to the front and as flat as possible retains much of the appearance of an archaic relief.”²

¹ Loewy, ‘Gr. Bildhauer,’ p. 3, No. 1. Since then new readings of the inscription have been proposed by Mr. Six (‘Mittheilungen d. Inst. in Athen,’ xiii. p. 142) and by M. Lolling (‘Ephemer. Arch.’ 1888, p. 71). M. Lolling reads: Μικκιά[δης τόδ’ ἄγαλ]μα καλὸ[ν μ’ ἀνέθηκε καὶ υἱὸς] Ἄρχερμος (σ)ο(φ)ιήσιν Ἐκηβό[λω ἐκτελέσαντες] οἱ Χίιοι Μέλανος πατρώιον ἄσ[τυ νέμοντες].

² F. Winter, ‘Jahrbuch,’ 1887, p. 224, points out the great exactness of detail noticeable in the face of the Nikè. He is led to assume that a system of measurements for the various parts of the human figure had been in use among sculptors even in those early times.

It was said of Archermos, that he had been the first to give Victory wings or at least that he had been the first to represent her in the act of flying through the air, as she is meant to be represented in the Delos statue. But whether this was so or not, we have in this statue an example of sculpture in marble from the hands of the men who first brought this branch of sculpture into fame. Archermos was followed by his sons Bupalos and Athenis from whom no work has survived so far. But it is known of Bupalos, that he had sculptured figures of the Graces for the temple of Nemesis at Smyrna, and that these Graces were draped (Paus. ix. 35, 6). At Pergamon also were to be seen figures of Graces by him. Under a rapidly advancing art Bupalos may be conceived as having surpassed the work of his father, much as certain statues (Figs. 86–88) found of late years on the Acropolis of Athens surpass the Nikè of Archermos. These also are draped female figures, and possibly in their attitudes they do not much differ from the Graces of Bupalos.

From their uniformity of aspect and from the fact of their having been found together close to the Erechtheum these statues may be supposed to have originally stood beside each other in some spot not far from where they were discovered. Many fragments of pedestals were found at the same time inscribed with the name of the goddess Athenè, and if these fragments belong to the statues, then the statues had been placed on the Acropolis in her honour. But if the statues were meant to represent Athenè herself, it could not have been in her usual character; for then she wore a helmet and ægis, and carried a shield and spear. It may have been in her

capacity of Athenè Erganè, the patroness of skilled industry.

On the heads of several of these statues rise metal rods, which had served for the attachment of some object carried on the head. What the object had been it is perhaps impossible to say, but if we compare the remains of Greek sculpture in general we shall hardly be able to find a better suggestion than that of a modius or cylindrical basket such as was carried on the head by those figures which we call Canephoræ. If the marble statues of the Acropolis, or some of them, had a modius on the head, we might regard them as prototypes of the famous Caryatids of the Erechtheum which with one exception, still stand close by. In these Caryatids, or, as we might equally well call them, Charites or Graces, the modius on the head is reduced to something like the echinus of a Doric capital, while the action of taking hold of the skirt with one hand but not pulling it aside, may be viewed as a later version of the archaic manner of distinctly pulling it aside, as in Fig. 88, and several others of the statues of the Acropolis. It is known that the Graces (Charites) had an archaic sanctuary at the entrance to the Acropolis, and reliefs have been found at the Propylæa, on which they are represented under a type of figure closely resembling these statues.¹

That these Acropolis statues cover a considerable period of progress will be seen from a comparison of Figs. 86, 87. In the former, archaic minuteness of finish in every detail is seen to perfection. It is combined with archaic restraint in adhering to a fixed

¹ See the relief found, Jan. 1889, close to the Propylæa. 'Bulletin de Corr. Hellén.' 1889, Pl. 14, p. 467.

expression of face, and a fixed type of features, with full lips turning up at the corners, a strong chin and overhanging eyelids. In Fig. 87 the long tresses of the hair



Fig. 86. Bust of marble statue. Acropolis, Athens.

have become free and wavy. Instead of minute curls over the forehead, we have wavy masses of hair ; the lips are less full, and the mouth has lost the formal smile of older art, the nose becomes straight, the eyes more

natural, and the form of the chest more soft and pleasing. It is in short a fine effort at a new and higher ideal.

A noticeable feature in these Acropolis statues is the brightness and variety of the colouring which has



Fig. 87. Upper part of marble statue. Acropolis, Athens.

been employed on the borders of the dresses, on the diadems, the eyes and lips. On the borders of the dress the usual ornament is the mæander or key-pattern, more or less simple or complex. On the diadem the

pattern is generally a row of upright palmettes like an earlier stage of the pattern known to us as the anthemion or honey-suckle. These patterns are so set out on the marble as to present sometimes a very agreeable combination of green, red, and white. In one of the borders of Fig. 87 the ornament consisted of a row of chariot groups racing one behind the other, like a prototype of part of the Parthenon frieze.¹ The lines faintly incised on the marble are still visible in parts, but the colours have faded. The principal colours employed on these statues are red, green, blue, and grey. In some borders there is a combination of red, green, and white. The colour which has stood best is the green. These colours, it is to be remembered, were not employed to cover poverty of material. The marble is Parian and from modern practice it would appear that nothing needs less aid from colour. To the early Greeks marble was as yet an unattractive substance, dug from the earth in large masses and of no intrinsic value. They had been accustomed to sculpture in gold and ivory, silver, bronze, ebony, and cedar-wood, more or less combined into a rich effect. At the same time we must not forget that the very frequent confining of colour to the borders and details of dress and to such parts of the face as are strongly coloured by nature as the eyes, lips, and hair, was itself a concession to the beauty resident in marble.

On the pedestal of one of the Acropolis statues (Fig. 88) are written the name of the person at whose cost the statue was erected and the name of the sculptor, Antenor. The person who paid

¹ Engraved in 'Jahrbuch,' 1887, p. 217, in an article by F. Winter, 'Zur Altattischen Kunst.'

the expense bears the well-known name of a vase painter. More than that, the inscription tells us that the sculptor himself, Antenor, was the son



Fig. 88. Restoration of marble statue, with base bearing name of Antenor. Acropolis, Athens.

of a vase painter whom we also knew before from literary records, in which he is credited with a certain boldness of invention beyond his contemporaries. It may be remembered that Pheidias also was the son of a painter, and it is perhaps allowable to speculate that the influence of one art upon another, of which we hear so much in historical studies, may oftener than is supposed have taken a hereditary turn. It is with Antenor himself, however, that we are now concerned.

He had been known to us before because of a certain bronze group which had become celebrated in antiquity from the strange vicissitudes through which it passed. It was a group which represented the two tyrannicides, Harmodios and Aristogeiton, striking down the tyrant Hipparchos in Athens in the middle of a great public ceremony. The incident was momentous, because it proved to be the

He had been known to us before because of a certain bronze group which had become celebrated in antiquity from the strange vicissitudes through which it passed. It was a group which represented the two tyrannicides, Harmodios and Aristogeiton, striking down the tyrant Hipparchos in Athens in the middle of a great public ceremony. The incident was momentous, because it proved to be the

beginning of the end of that form of government by tyranny which the Athenians had borne



Fig. 89. Harmodios and Aristogeiton. Two marble statues in Naples Museum, arranged as a group.

too long. It was no wonder that an incident so pregnant with great consequences was ordered to be

commemorated publicly by a work of sculpture, and equally it was not strange that the Persian king Xerxes, himself the model of a tyrant, should have had something to say about the group, when he found Athens at his feet. One would have expected that he would lose no time in ordering its destruction. But no; tradition says that he carried it off to Persia, where it remained for several centuries, being ultimately restored to Athens by Alexander the Great or one of his successors. In the meantime the Athenians ordered a copy to be made of their favourite group and set it up in a frequented spot near the Areopagus. It was not Antenor that made this copy. At least thirty years had elapsed since his original group was made, and possibly he was by this time too old, or may have gone over to the majority. Two sculptors were employed to reproduce the group of Antenor, but as to whether they had been pupils of his or not we have no information. Nor can we tell how far they had adhered to the original motive.

It happens that a group of tyrannicides is known to us from ancient copies; it has been recognised in two marble statues in the Museum of Naples (Fig. 89), on a painted vase from Athens in the British Museum and on coins. But what is strange in all these representations of the group, is, that the victim Hipparchos is missing. You see Harmodios and Aristogeiton advancing side by side with murderous intent, but with no enemy before them; and yet in the original group the victim must have been present much as we see him on a fragment of a painted vase recently found on the Acropolis. The only explanation that occurs to me is that Xerxes, having, very properly from his point of view, destroyed the figure of the fallen Hipparchos,

had at the same time carried off the two slayers of him, either to vex the Athenians or from admiration of them as works of art. He would be free to admire them when the figure of Hipparchos was once removed. When the group was returned to Athens, it would, of course, consist of only the two figures, the vicissitudes of which would attract public attention and lead to representations of them being made on coins and vases.

Of the two Naples statues, one has been much restored in modern times, and is of small use as an illustration of archaic Greek art. The other has fortunately been fairly well preserved. This is the nearer of the two in Fig. 89. It is a figure of a very rugged build, with a long body thrown well forward, so as to bring out strongly the forms and structure of the bones. The legs are comparatively short, showing that already a change had begun from the oldest manner of a short body and long legs. In the face and head, the structure of bone is rendered in a rough, strong fashion. Altogether the figure reflects admirably the rude strength of the times, with considerable knowledge of structure and form, but without the power of conceiving the human figure as an organism perfectly free in its movements.

There had never been actual proof that the two Naples statues were ancient copies from the group by Antenor. Some had supposed them to be rather copies from the group substituted for it in Athens. But now that a statue (Fig. 88), which is claimed to be by Antenor, has been found on the Acropolis, there is, or ought to be, an opportunity of comparing the two,

and perhaps deciding the matter. The face of the recently found statue is certainly much injured, but still there is enough to show a considerable resemblance of treatment when it is compared with the other head, and so far this resemblance is in favour of the view that the Naples statues had been copied directly from the group of Antenor.

Before leaving the statue of Antenor it may be interesting to notice the peculiar attitude of those archaic draped figures holding the skirt of the dress a little on one side. It is a very general attitude in archaic Greek sculpture and has apparently no analogy in the ancient art of other nations. But what is its meaning? Possibly some hint may be gained from the contemporary poets. Taking Pindar's "Odes" and the many surviving fragments of the older lyric poetry which go back into the 7th cent. B.C., we find no more constant reference than to the quality of gracefulness, or *charis*, as they called it. It abounds in Pindar, and even the much older Archilochus says, that in his time they valued gracefulness more than life, which is much the same as the modern saying, "it is as well to be out of the world as out of the fashion." But gracefulness, we suppose, is confined to action or movement. The action or movement must be slight and yet it must manage to impress itself on the whole aspect of the figure. The whole figure must contribute to the production of the sense of gracefulness, and must contribute by a minimum of action or movement. No doubt this effect could be obtained in many different ways. In these archaic statues it appears to arise from a consciousness of personal attraction which the face, the attitude, the action of the hand combine to express.

Charms of person and grace of demeanour were powerful elements in the daily life of the period immediately preceding the Persian wars. In the Athens of those days Peisistratos had been the most conspicuous figure, and had owed much of his success in establishing himself as tyrant of the city to his personal beauty and attractiveness. He must have divined the tastes of the people well; for it is told that his plan of seizing the Acropolis and installing himself as ruler was to get hold of a handsome young lady, dress her up as the goddess Athenè and drive her in a chariot through the streets. The people followed with delight to the entrance of the citadel, and only recognised their mistake when he was safe within it. Still their vexation did not take serious root. They were prosperous. The tastes of the time were such as to encourage industries and the minor arts. Everything tended to foster skill and handicraft. Peisistratos encouraged the public intelligence. He gave them a free library, the first thing of the kind that had been heard of. He set scholars to collect the ballads that were then floating about under the name of Homer, and to put them into shape for general reading or for educational purposes, connecting them into one narrative by new passages skilfully imitated from the phraseology of the ballads themselves. But amid all these circumstances favourable to skill and industry, there was no impetus to higher art. Yet if there was no strong impetus to the higher arts, there was much to urge on minute knowledge of details, precision and grace in the rendering of the details, so that when the new dawn of artistic inspiration should come, it would find everything ready that skill could do.

Among the inscribed pedestals found along with the statues on the Acropolis was one bearing the name of Onatas,¹ a sculptor much praised in antiquity. We read often of him and of the Æginetan school, of which he was the chief ornament. We possess a few of the metrical inscriptions which he, like some other sculptors of his time, used to place on the pedestals of his works, telling that he, Onatas, son of Micon, living in Ægina, was the sculptor. One wonders whether these old artists always went to some poet for their verses. The verses of Onatas may not be poetically ambitious, but it is worth remembering for a moment that the times must have been very simple and natural in the appreciation of art when the right thing for a sculptor to do was to write boldly across his pedestal a couple of verses telling his parentage and home, occasionally also mentioning some previous work that he had done.

It has been the custom to assign to Onatas part at least of the statues obtained from a temple in Ægina, and now in Munich. From the style of these sculptures it was thought that they must belong to his time, and from the honour and esteem in which he was held in his native place it was argued that he would never have been passed over in so conspicuous a public work as was this temple. These are mere probabilities, and it is therefore a matter of deep regret that no statue has yet been found on the Acropolis to fit on to the pedestal bearing the name of Onatas. It could not have been a much larger statue than those

¹ See 'Ephemeris Archaïologike,' 1887, p. 145. Besides the name of Onatas, this pedestal bears also a dedicatory inscription, which has been read: *Τίμαρχος : μ' ἀνέθηκε : Διὸς κρατερόφ[ρονι Κούρη | μαντιῶν φρασμοσύνη μητρὸς ἐπ[ήραν.* C. I. A., iv. Suppl. 373⁹⁹.

of which we have been speaking, and they are all a little under life-size.

If we compare Fig. 88, as representing the style of Antenor, with the figure of Athenè from the centre of one of the Ægina pediments as representing the style of Onatas, we shall find that in the latter the drapery is still formal, but even then we can trace an effort at freedom in the smaller folds which are produced by the movement of the legs. The larger folds retain the conventional manner. So also in the position of the feet you may observe a desire to place them in such a way as to bring out something of the forms of the legs, as well as to give a new turn to the minor folds of the dress. In general there is a marked advance towards freedom.

It happens that among the sculptures of the Acropolis there was found a bronze head, which from the point of view of archaic art is unrivalled in its perfection (Fig. 90). The old feeling of *charis* or grace is still dominant. The eye-brows have the delicate conventional arch. The eyelids are in the archaic manner, though more graceful in their lines, as are also the full lips with strongly marked contours, while the beard excels in the refinement of form and detail which the archaic manner aimed at. The ear is set far back, but the lines of it exhibit the same love of graceful curves and forms which characterises the archaic period of all art. On the head has been a helmet made separately and attached with nails. The eyes have been inlaid with some material that has mostly perished.

On comparing this head with that of the Ægina statues in Munich, it will be seen that considerable resemblance exists between them, so much so that

one would be tempted to suppose the bronze head to be in reality that of the missing statue by Onatas were we quite sure that the Ægina statues or part of them had actually been executed by him, as is generally supposed. At all events we have in this bronze head a very beautiful example of the sculpture of his time, most carefully minute in its details, most devoted to graceful curves and forms and yet aiming at a general truth of structure. Some have thought



Fig. 90. Bronze head. Acropolis of Athens.

this bronze head to be the work of Ageladas, finding in it just those qualities of minute finish, grace, and general knowledge of structure for which he is famed.

We have seen in the marble statues how much bright colours were admired for borders of draperies and the like. We cannot expect to find on the bronzes

the same extent of bright colours. Yet there are instances where we have an equivalent, in particular a very beautiful statuette of this period in the British Museum, where the drapery is enriched with a conspicuous border of the mæander pattern inlaid in silver. In another respect the statuette is unique, its eyes are made of diamonds. In bronze sculpture the eyes were usually made of some bright material, mostly in the form of glass paste or of ivory for the white of the eye and ebony for the pupil. We read also of precious stones being used, not however diamonds. Apart from these technical matters this statuette is remarkable for the great beauty of the face, which may fairly be regarded as a prototype of the Athenè of Pheidias, as we know it from copies that still exist, such, for example, as the marble figure found in Athens some years ago, or a bronze statuette (Pl. XX.), which appears to be a copy of his Athenè Promachos, the colossal statue of bronze which stood on the Acropolis.

The effort of the Athenians at this time towards a large ideal style is shown by another example from the Acropolis. It is a bronze head of a statue. Its resemblance in type and style to the head of Apollo from the west pediment of Olympia, is striking in the highest degree (Pl. XIV.). Now the sculptures of the west pediment of Olympia are remarkable for nothing so much as the largeness of their style, and yet it is a largeness of style which the sculptor has only been able to attain by allowing himself extraordinary negligence of detail. His work represents the first great revulsion against the old formality and precision. It shows him to have been incapable as yet to combine with his largeness and idealism the necessary

truth to general detail which Pheidias knew how to combine.

Nor is the statue of Nikè by Pæonios at Olympia (Fig. 91) free from this defect, though the production of a figure in the round would have naturally invited greater accuracy of detail than we find in the pediment sculptures, where the task was more akin to working in relief. This statue, according to the inscription on its base, was made by Pæonios after he had completed the sculptures on the *acroteria* of the temple, and if we assume that these sculptures consisted of figures of Nikè, as we may reasonably do, then the statue in question would probably be more or less a replica of them. That would justify the adherence of Pæonios to a more strictly architectonic treatment of his figure than he might otherwise have arrived at, and would also perhaps explain his use of the word *ἐνίκα* in the inscription, as meaning not that he conquered in a competition, but that he made so many figures of Victory as to suggest a play on the word, viz., that he also was a victor. These sculptures of Olympia are older than those of the Parthenon. They are supposed to have been finished about midway between the Persian invasion and the sculptures of the Parthenon. But now we find among the ruins of the Acropolis older than the Persian invasion an example of the same large rough style, from which we may conclude that art had been making efforts towards its high ideal at an earlier period than had been supposed.

The figures which occupied the pediments of the Parthenon are sculptured in the round, and the backs of them, though rarely finished with the same care as the fronts, are yet for the most part fine examples



Fig. 91. Statue of Victory by Pæonios. Olympia.

of art. But these sculptures were not intended to be seen as they are now seen in the British Museum. They were placed with their backs hard against the wall of the pediment, and so far were invisible. Was it, then, useless to carve the backs of these figures with so much thought and skill? But we may equally well ask, was it useless for Raphael to first draw his figures in the nude and then put in the drapery on them?

The question is not without importance. For though it may be neglected or set aside, as in the pediments at Olympia, under the influence of a training in sculpture in relief, yet, this influence apart, it seems hardly possible for a sculptor to make sure of the front aspect of his figures, until he has at least thought out or sketched out the backs also. While again from the point of view of a spectator, a work of art no less than a scene in nature unconsciously affects him by much that he does not see. Many things invisible to him are working together to produce a total effect which he admires, and in these circumstances he is not entitled to say that the same effect could have been produced by just the things he has recognised and no more.

If then a sculptor bestows much thought and care on the back of a statue which is not to be visible, we may conclude that he has been possessed of a spirit of realism which has compelled him to aim at the greatest possible completeness in the total effect of his figure.

In the sculptures of Olympia, idealism had the upper hand. It produced types of beings of a noble order. But they were deficient in the reality of life. They sought nobility of type at the cost of truthfulness to

actual detail. On the Parthenon the balance was redressed. Reality of detail, of proportion, of costume, of action, was combined with an ideal conception of beings of the highest order. In archaic art there had been abundance of realism of detail, but it was not a realism of the whole of the details of a figure, only of a part of them, and that a part which most directly appealed to the spectator. On the Parthenon we have a realism of the whole which even goes so far as to sculpture finely the invisible backs of the figures. But observe, it is not a realism that goes down to the minutest details. It is not master of the situation.

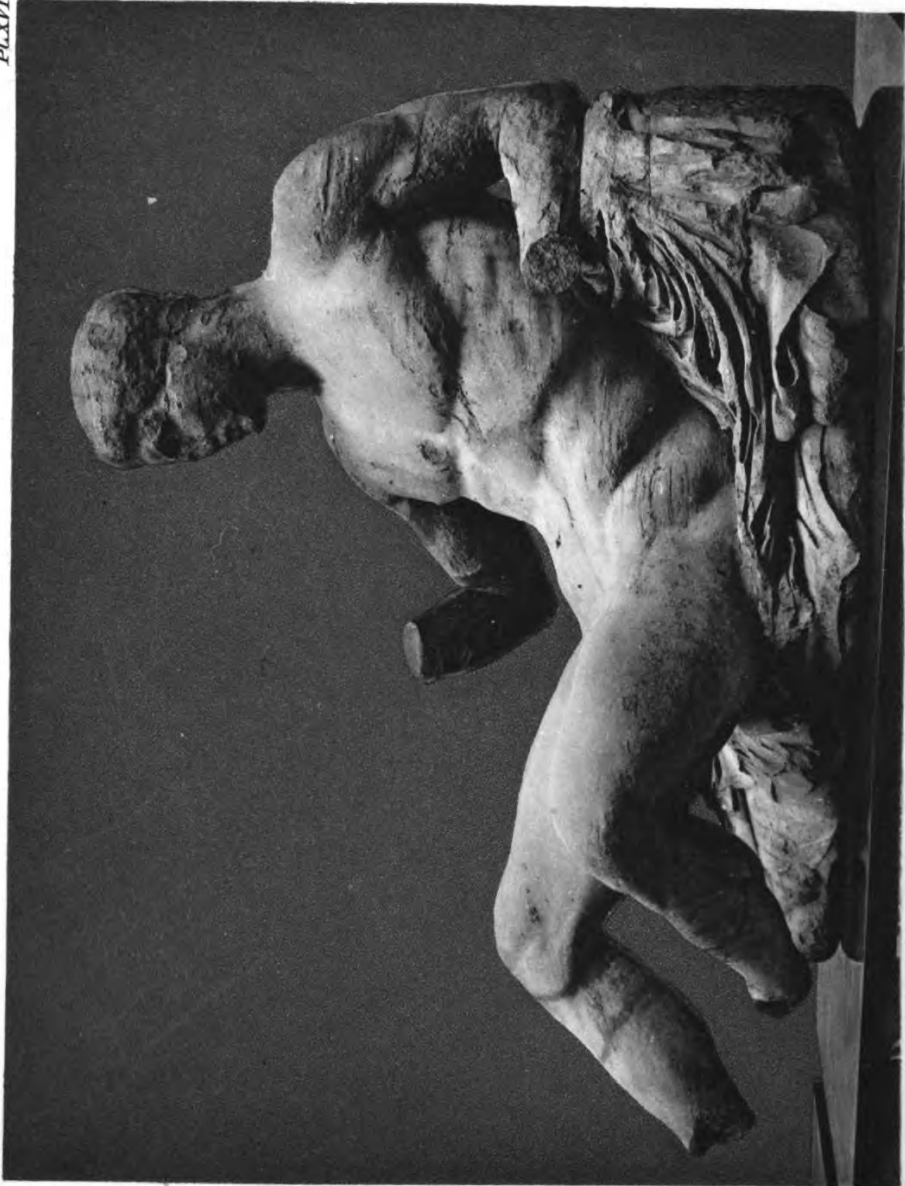
The sculptor responsible for all the work of the Parthenon was Pheidias. It was not in the character of the times nor of the training he had received to give up that dwelling of the imagination on possible types of beings which should transcend the best that nature produces in form and in spiritual endowment. That he could not surrender; he was bent on reconciling it with the realities of natural form, action, and costume. In such a task there must have been a vast amount of give and take, which cannot now be analysed and apportioned. But we can bear in mind this main fact that Pheidias, finding in practice a realism which was excessive in parts but defective as a whole, and an idealism which was excessive as a whole but defective in details, redressed the balance in these matters.

Let us consider more particularly the east pediment, from which the two great groups in the angles have survived; they are now in the British Museum. The subject of the whole composition was the birth of the goddess Athenè from the head of her father Zeus.

That event took place at daybreak. Earth and sea trembled in surprise, although it was neither on earth nor on sea, but high in Olympos that she was born. But while in poetic language earth and sea were moved by the great event, we are uncertain whether the sculptor included these phenomena in his design, whether in fact the figures at the extremities of the composition are personifications or representations of the earth and sea, and are as such intended to exhibit the effect produced on the world by the sudden birth of the goddess.

What we do know from the figures of the pediment which have survived, is that the sculptor employed the element of surprise so as to knit together his composition on both sides of the central group. We can see from the attitudes of the figures that the surprise had been produced by a great sound and commotion in the centre, diminishing in volume towards the extremes; the figures in the two extremes are turned away from the centre and could not see what was going on there. They could only hear; those the most remote hear the least and are least moved. Such a graduation of effect towards the extremities of the composition would hardly be explicable if the whole of the figures were conceived as being in Olympos. Still less is it likely that any of the divine inhabitants of Olympos would have their backs turned to so momentous an event as the birth of Athenè in their midst, and this turning of their backs to the centre is itself a strong argument for regarding the figures at both extremes of the composition as representing in some way or other earth and sea or other mundane phenomena. It does not follow that they are mere personifications of this or that mountain or stretch of

PLXXVI



Heracles?

coast. It is enough that they represent the effect of the birth of Athenè on the world beneath Olympos, in particular on Attica.

We may now examine more closely the statue commonly known as Theseus (Pl. XVI). Between him and the left extremity of the pediment there was only space for the sun-god Helios rising from the sea with his chariot of four horses. Theseus, or Dionysos as he is also called among other appellations, is turned towards Helios, as indeed the triangular shape of the pediment required. The shape of the pediment had been known to the sculptor when he was preparing his design, and we may safely assume that in conceiving the composition as a whole it was no small matter for him to find that the subject could be treated at once powerfully and suitably to the exigencies of the space, by turning the figures at the extremities away from the centre. He shows us the sun rising in front of Theseus, and if we interpret the scene literally we must suppose that the sun's rays will directly illumine the body of Theseus.

But is it possible for a sculptor to convey this interpretation? He is not like a painter, in whose picture the light never changes, for whom in truth the sun stands still the moment he wishes it. A sculptor must reckon with a light which changes steadily all day long. At daybreak in Athens, in the spring, the rays of the sun strike the angle of the Parthenon pediment where this figure was placed, and at that moment the actual light of the morning would coincide with the imagined light of the marble Helios, giving us a literal rendering of the scene; but for the rest of the day the figure would be subject to the continual change of light as the sun passed round from east to

west. In these circumstances it would be a triumph of genius to sculpture the figure of Theseus in such a manner that through all the changes of the day he should constantly in some degree or other appear to us as a distinctly sunlit figure, as if the marble Helios were all day long shedding his light on him. It may be affirmed that Pheidias has endeavoured to obtain this result. But this principle, it will be said, should hold good of the other figures in the composition, which should appear during the glare of day as if they were seated in the dim dawn of morning. We do not assert positively that this has been done; but surely no one can look at the other figures of the pediment next to Theseus without feeling that in the strong projections and deep recesses, in the innumerable shadows which play round them, there is an effect which recalls nothing better than early morn, when shadows are supreme over the face of nature. Remember we are dealing with a sculptor to whom this was only one of many other, and some of them more vital effects which he had to produce. And now let us look at the Theseus again.

A modern critic of the greatest eminence believes the statue to be a personification of Mount Olympos, while an artist, even more distinguished, finds a singular charm in this idea, the bare sun-lit forms of a Greek mountain being to his mind finely suggested by the forms of the Theseus. We may not agree to call him Olympos, but we cannot dispute the truth of the observation. The Theseus is massive in his forms and bare like a Greek hill. He is turned mainly to the imagined light of Helios, but is partly turned also to the ordinary light, which for the greater part of the day would only reach him indirectly. In such

light the modelling of the bones and muscles in a figure so powerfully built, would be expected to stand out boldly in light and shadow. But somehow the Theseus does not convey to us this effect. The forms of his body, though they are massive and powerful, are yet made to lie as far as possible in one large plane, as if the intention were that the natural shadows should be chased away from them; the front of the body presents an extraordinarily large surface compared with its thickness and roundness. Indeed its thickness and roundness are much below what would naturally be looked for.

Apart, however, from this question of light, there is both in the Theseus and in the Ilissos of the west pediment, a noticeable effect produced by the attitudes in which they are placed. Both of them have the upper part of the body turned round sufficiently to bring out the markings of the ribs and chest in striking contrast with the softer parts of the body adjoining. For a moment we cannot help thinking that there is too much bone displayed—too much of the skeleton. But here we are reminded that in sculpture which was intended to adorn a great temple like the Parthenon, where powerful lines of construction are strikingly visible at every point, it was necessary that the forms of the statues should to the utmost possible degree partake of this element of construction, and should display by preference the long, clearly defined outlines of the principal bones, together with a flat, and if necessary, hard treatment of the flesh, avoiding whatever from its roundness was suggestive of instability.

At the other extreme of the pediment the moon (Selenè) descends behind the horizon, her body down

to the waist being still visible, as is also the incomparable head of one of her horses. On the painted vases the more usual representations of Selenè show her riding sideways on horseback, and in some instances the group is so poetically conceived as to raise an expectation that on the Parthenon also she may have appeared riding. But besides the horse's head in the British Museum there are still on the Parthenon the remains of three more horses, from which it follows that Selenè, like Helios, drove a chariot of four horses. Both her arms have been extended straight out from the shoulders as if in driving, while there remains on the back of her shoulders part of a scarf, the ends of which had fallen over her arms, as is often seen in drivers of chariots.

Behind Selenè are the three draped figures commonly called the Fates (Pl. XVII.). We know from a marble relief at Madrid and from ancient literature (e.g. Pindar, *Olymp.* vii., 64, and Bergk, 'Frag. Poet. Lyr. Gr.,' p. 864), that the Fates were present at the birth of Athenè. But on that occasion their place was close to the central group. A fragment of Euripides speaks of the Fates who sit nearest to the throne of Zeus (Nauck, 'Frag. Poet. Trag.,' p. 437). Equally certain is it that they were not surprised by the event, as this group of three has been. Thus the distance of these figures from the centre, towards which indeed their backs have been turned till but a moment ago, their attitude of surprise, and eagerness to turn round, seem to indicate that they are beings who in some way represent the earth and human interests as affected by the birth of Athenè.

But whatever their names, it is enough for us at the moment that this group is an idealization of



Group from East Pediment of Parthenon.

Museum, Berlin

draped female form as was the Theseus of nude male form, the one speaking of the sun's light, the other of the comparative chill of night. To begin with the attitudes, it is obvious that these three beings have been fashioned able to move in any way they please, to sit, or lie, or rise, or stand, or run. Hitherto we have seen nothing approaching this in Greek sculpture. Most of the figures we have met with stand stiffly upright: others sit equally upright and rigid, never suggesting that they could do aught else. They were made to convey the one idea. But here we have beings to whom it is the mere accident of the scene that they happen to be in these postures. Their bodily powers are perfect, and what is more, these powers are perfectly under the control of their will. We have thus for the first time beings in whom the inner and the outer life are reconciled, with perfect freedom of will and perfect freedom of form.

As regards the drapery, it also presents a striking contrast to older art in this same spirit of perfect freedom as compared with archaic restraint. In archaic sculpture we have admired the fine fastidious folds in which the drapery was systematically arranged, as if it had been put on a little wet, and then pressed into shape. Here we have got rid of fashion and its fastidiousness. Beauty is found in the wider consideration of what is necessary, no more and no less, for a perfectly noble form. That determines the amount and general character of the dress. In particular the dress, while it covers the forms, has no need to conceal them. It must in fact be shown to be distinct from the forms beneath, and this is achieved by treating it as a perfectly distinct thing, movable

and removable at pleasure. It thus aims at a beauty of its own, and calls upon the sculptor to reproduce the innumerable charms of light and shade which belong to it under this aspect of an accessory with special features of its own. It is like the movement of a clear stream, which though distinct from its rocky bed yet owes its infinite charm largely to the configuration of that bed.

Before passing away from the age of Pheidias, it is necessary to bear in mind that he had two great rivals in his day, Myron and Polycleitos, both of whom contributed largely to influence subsequent art, and to make it not altogether a direct development of the style of Pheidias alone. Myron, Polycleitos and possibly also Pheidias, had been trained under one master, Ageladas, at Argos. From him they had acquired technical mastery. But each of them had a peculiar bent of genius, and each took his own path. Polycleitos set himself to a reform of the proportions which it had been usual to assign to the human figure. In archaic art the body had been short and spare, the legs long and massive. This he reversed, making the body long and robust, the legs shorter in comparison. Among the many athletes of his date there would be some of this type, as there are now. It may even have been the fact that the majority of them were men of these proportions. In any case we have him choosing this type as his ideal for the male figure. Pheidias must have agreed with him in principle, though reserving to himself the freedom of modifying it, as in the Theseus and Ilissos of the Parthenon; for this principle of proportions lends itself better than any other to the reconciliation of the inner with the outer vitality of men. It gives size and dignity to the chest

and head, wherein lie the great organs of the inner life. Polycleitos moved with the spirit of the age in this particular, and confining himself to single statues, he was able to concentrate on each of them the full force of his thoughts.

He is said to have embodied his canon of proportions in two statues, the one a spear-bearer (Doryphoros), the other a successful athlete binding a diadem round his head (Diadumenos). The latter is represented by Fig. 92, but evidently with many modifications which had been introduced by later sculptors between the time of Polycleitos and the Roman period when this particular statue was made. The same may be said of the Naples statue of a Doryphoros.

Myron was more original in his bent. His first impulse was to get away from the ever-recurring gods and heroes in the art of his master and his older contemporaries. He went direct to nature for a new class of subjects. He studied animals, with the result that he produced a bronze cow, about which a great number of epigrams were composed. He took groups from ordinary life, such as two boys playing at knuckle-bones; and the strength of this tendency in him towards scenes of ordinary life may perhaps further be inferred from the fact of its coming up again in a marked manner in his son Lykios. But with all his revolt from tradition in the choice of subjects and the freedom he allowed himself in the attitudes of his figures or groups, Myron was still true to the spirit of his age.

That spirit was, as we have said, a striving towards the reconciliation of inner vitality with outward form. And if Myron pushed it to an extreme in one direc-

tion, he did so only relatively. He did not approach the realism of later art. On the contrary while searching after truthfulness to nature and emphasizing it,



Fig. 92. Marble statue of an athlete (Diadumenos). From *Vaison*. Brit. Mus.

he at the same time was a diligent student of symmetry in the composition of his figures, and even in respect of rendering the hair was content to accept the formal manner handed down in art. From these facts, which



Fig. 93. Caryatid of the Erechtheum. Brit. Mus.

are duly recorded of him in ancient writers, we may gather that the truth he sought after was primarily truth of detail in the anatomical forms and next

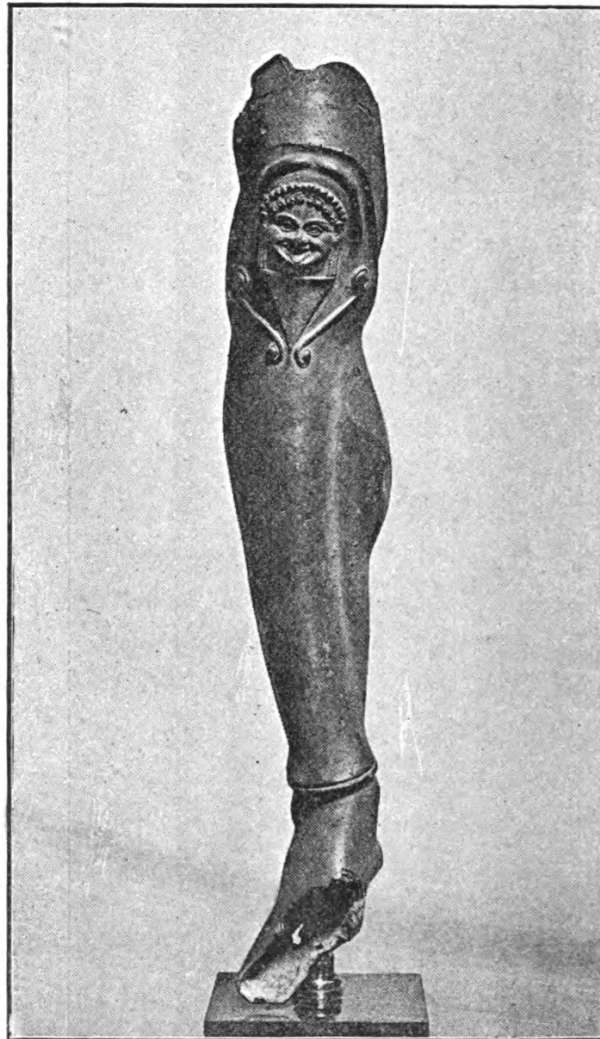


Fig. 94. Bronze leg of statue, with greave. *Magna Græcia*. Brit. Mus.

truth in observing the nature and character of his subjects.

Between the age of Pheidias, Polycleitos and Myron on the one hand and of Praxiteles on the other, we



Hermes of Praxiteles.

have no prominent names of sculptors. But in such works as the Caryatids of the Erechtheum we have a proof that the noble simplicity of style which Pheidias had set the final seal to, had been maintained. Fig. 93, represents the Caryatid now in the British Museum. Worthy to compare with her in simplicity and dignity of style is the bronze leg from a colossal statue, Fig. 94, which was found in Magna Græcia, and is now in the British Museum. "The finish is that of a gem or a coin, while the largeness of treatment is such that it might have been hewn with an axe, and the play of the muscles is as full of spring and elasticity as life itself." (Mr. Poynter, 'Hellen. Journal,' vii., Plates 69, 69a.) An examination of the surface reveals a large number of spots where the sculptor has removed flaws from the bronze, replacing them by very thin oblong pieces of bronze, reminding us of the careful finishing of bronze statues suggested by the picture on a Greek vase in Berlin, where we see the sculptors at work. It would appear as if the ancient sculptors had left much more to be done at that stage than is the custom in modern times.

The most famous representative of the new generation was Praxiteles. The reputation he enjoyed in antiquity has been revived in our time by the finding of one of his statues at Olympia, the marble statue of Hermes holding on his arm the infant Dionysos (Pl. XVIII.). There was need of some one to be kind to the infant Dionysos. He had been born amid the lightning which consumed his mother Semelè: she was a mortal and must perish; but he was born a deity and must be brought up to that function. To this end Hermes appeared on the scene to carry off the infant to the nymphs who were to have charge of his

childhood. It is on this errand that we see him in the statue. Hermes is looking down to the infant on his arm answering its look of childish curiosity with a kindly smile—such a smile as would be expected from a man of powerful build, holding a mere infant on his arm. We know from a Pompeian painting, and from two terra-cottas in the British Museum, that Hermes held up in his right hand a bunch of grapes. His face is perceptibly broadened, though far from the degree which is expressive of mirth. The right cheek is pushed back a little, and the effect of this is increased by the interruption of the otherwise long line of the jaw caused by the lowering of the head, which also in the circumstances was an action produced by a feeling of tenderness. The eyes are turned inwards a little, as if looking at a near object, and the pupils, instead of standing vertically, slope forward in the upper part. Such a thing may not be precisely possible in nature, but it was not uncommon in Greek sculpture, even before the time of Praxiteles, when a face was to be seen from below. In this instance the purpose appears to have been to express the full and kindly gaze of Hermes. It would seem also that this placing of the eye so as to fill up the socket more than usual, and thus destroy the mass of shadow which would otherwise be there, helps materially to brighten the face and add tenderness to the expression.

There is no instance in older sculpture in which character and moral nature are expressed to nearly this degree, and when we seek for the earlier forces that may have contributed to bring this about, we cannot overlook the influence of Myron in particular with his close observation of nature, nor the general

tendency of the age of Pheidias towards the reconciliation of the inner with the outer life.

In regard to the head of Hermes, it is to be observed that the cranium is large and round, and that the face detaches itself from it in a measure, whereas in older sculptures of the school of Polycleitos the cranium is narrow and high. Even Pheidias, to judge by the Theseus, retains a good deal of that manner, though displaying a tendency to roundness. It is only in Myron that we find the true prototype of the head of Hermes, and that is in the copy of his Discobolus in the Massimi Palace in Rome. The type became thoroughly Athenian, and not improbably it was through Alcamenes, a pupil of Pheidias, that it was handed on and improved in the interval between Myron and Praxiteles.

But now, as to the bodily forms of Hermes, if it were only a question of the largeness of the mould in which they are cast we could not fail to think of Pheidias as the inspiring source. They are massive and powerful, if you come to examine them. Yet they do not appear as such unless you examine them. That is to say, their absolute strength is not allowed to appear on the surface, as in the Theseus. It is toned down by a gentle covering of flesh wherever that is possible, and this gives the sculptor innumerable opportunities for subtle modulations, on which the light plays very sweetly. No doubt the youthful forms of Hermes required a treatment of this kind. But as yet it had been but a short time that art had troubled itself at all about youthful forms. It had been content with a Hermes bearded and ripe like other men. And even in the figure of the infant Dionysos in this group, we can see how Praxiteles

had failed to realise the true forms and nature of an infant.

The mere conception of Hermes as a youth was obviously a concession to the new and advancing power of representing nature in youthful as well as mature forms. Does then the whole credit of this conception belong to Praxiteles? We cannot believe it, if we remember for a moment the Parthenon frieze with its magnificent array of Athenian youths on horseback and on foot. Never had anything of the kind been seen in art before. The Parthenon frieze was a glorification of youth, neither more nor less, young men and maidens alike. To this day it stands unique in that respect. We must then allow that Pheidias had done much, perhaps by far the most, to form Praxiteles, marked though the difference is between them. It is a difference which has arisen, as we have said, from a closer observation of character in combination with a closer observation of details of form.

We are passing rapidly from point to point, but it is necessary to notice here another feature of Greek art in which Pheidias had exercised a commanding and enduring influence. We mean the ennobling of female figures. It is necessary to do so now because Praxiteles undoubtedly owed much of his fame to his female figures, for instance his Aphroditè in Knidos, from which it may be inferred, that he had effected some considerable change on the older types of that goddess. That he made her more sensual is to be admitted from all that we know of the statue and of the tendency of his age. That he set an example which later artists took ready advantage of to produce works of very inferior merit is also very probable. But it does not follow that for the sake of

a sensual effect he resigned, or, in the nature of things, could have resigned, the teachings of a grand style which still in his day governed the spirit of artists to a large extent. As in the Hermes, so in the Aphrodite we may safely assume that he had adhered to the largeness of form of older times, reducing it only so far as was necessary to make room for character and expression. As a standard of the largeness of female form in the older age we have the statues of the Parthenon. Praxiteles must have modified that standard considerably, though we cannot quite tell how far. We may take the coins of Knidos, on which is a nude figure of Aphrodite, and assume that this figure represents the famous statue of Praxiteles. Or, again, we may take surviving statues of Aphrodite of this special Knidian type and find among them one or two (as in the Vatican and in Munich) which reflect something of a grand style. Or we may rather look for his general spirit in a noble statue like the Venus of Milo in the Louvre. But an actual female figure from his hand which we can set beside the Hermes, we have not.

An effective example of grief is to be seen in a statue found near Athens (Fig. 95), representing a female figure seated, with her head resting on her right hand, the left hand lying helplessly on her lap, the feet crossed. This statue has been assigned to the age of Scopas and Praxiteles. But it must have been at the beginning of their age that it was sculptured, if not even a little farther back towards Pheidias. The forms are of a larger mould than we have been taught to associate with Scopas or Praxiteles. There is a roughness and want of finish unusual in their time. Nor is the figure penetrated with vitality,

as on the Mausoleum frieze. She represents the



Fig. 95. Marble figure, found near Athens.

grief of no individual person, but a common grief which sooner or later overtakes most persons of her



John Murray, Alton, artist.

Marble Statue of Demeter.—British Museum.

class and station along with the rest of mankind. She is thus neither a portrait nor a personification of grief in general, but the representation of grief as it affects a particular class of womanhood which she in her person places before us. The sculptor seems to have avoided carefully any very strong feeling such as would have made us think of some individual person and her sorrows. He might for example have much intensified the expression of grief by merely placing her on a horizontal seat. With her present attitude she would then have been bent forward more than now and would have looked almost piteous in her dejection. He must have foreseen this, and to have foreseen it is equivalent to the power of meeting it. The face, however, is sad, contributing with the attitude to express clearly the emotion of sorrow.

Belonging to the school of Scopas or of Praxiteles is the statue of Demeter from Knidos, Pl. XIX. The type is that of a young mother, a Greek Madonna, as she has been called, whose sorrows and whose joys are of a saintly character. Her feelings at the untimely loss of Persephonè are not allowed to do violence to her personal beauty, and yet they must be expressed. What the sculptor had to do was to reconcile her physical beauty with her emotions, keeping both unimpaired. He had to find or create, a type of face which these emotions would enhance. The head is turned a little sideways, as if in some uncertainty as to what direction she should look for the coming again of her daughter. The sockets of the eyes, though fairly deep, are relieved of part of their shadow, by the brows being rounded off and not allowed to impend over the eyes. Why the forehead is so high seems to pass explanation. The eyes

are rounded and penetrating. The muscles of the face work forward towards the profile, as in all cases of sorrow, the effect again being that the breadth of the face, when seen in front, is considerably narrowed; that is to say, the expressive part of the face is circumscribed within the narrowest possible area and is thereby intensified. But the cheeks do not lose their softness; that result has been attained by taking one of those types of women who carry much of the aspect of ripe maidenhood on into a fairly advanced matronship, who in fact remind us of Madonnas, combining in equal measure the spiritual and the sensual form. The mouth of our Demeter, while it suits perfectly this Madonna type, would be too small for the older ideal order of Pheidias.

According to the belief of the Greeks, Demeter, when not accompanied by her daughter Persephonè, was divided between sadness at her absence and a hopeful looking forward to her return. The frantic despair when first Persephonè was carried off, had been succeeded by resignation to the arrangement made by higher powers that Persephonè should be allowed to return and live with her the half of each year, the joyous half, when the face of nature was smiling. The other half of the year, the wintry half, she must live as the consort of the grim god Hades. Thus a figure of Demeter, seated solitarily, as our statue appears to have been, must represent her in the wintry half of her life, sorrowing for the absence of Persephonè in so uncongenial a region, yet happy in the certainty of her return. These feelings it is argued are expressed in the face of our statue.

Great as were the service and fame of Praxiteles and others of his generation, Greek art was not en-

slaved by them. When they passed away it looked elsewhere, not content to merely follow out their principles and methods. It was fortunate in having many centres of vitality, in one or other of which it was not unlikely that a man of independence might arise. In this case the man who did arise was one whose circumstances of life had been such as to give him naturally an independent turn. That man was Lysippos. He had been brought up in the town of Sikyon to the trade of working in bronze. How he acquired technical training in modelling is not said, but it may be inferred that he owed much of it to his own observation, if we may judge from his habit of leaving his pupils to look out for themselves, telling them that it was better to do so than to copy the examples of old masters. He did not mean them to neglect the old masters, but to observe their works carefully without copying them; and to observe nature in the same way. Such at least was his own practice.

A Roman writer of good authority, Quintilian, says that Lysippos was one of the two Greek sculptors who approached nearest to truth. We may take this statement as a confirmation of his desire to follow nature. Another Roman writer, Pliny ('Nat. Hist.' xxxiv. 65), tells us that Lysippos had contributed much to the advancement of the art of sculpture by his manner of rendering the hair, by his making the heads of his statues smaller than had been the rule before, and by making the figure itself slimmer and harder than his predecessors had done. In the composition or attitude of a statue he cultivated symmetry most diligently, and replaced the squareness of older sculpture by a distinctly new system of proportions.

Minute finish down to the smallest details was a characteristic of his work.

There is no question that this ancient judgment on the style of Lysippos was in the main just. It can be tested by the existing statue of an athlete scraping himself with a strigil, with which we are familiar. There the head is obviously smaller than in older art, though no less clearly it is a direct development of the manner of Praxiteles as we see it in the *Hermes*. The body is considerably shortened and the legs proportionately lengthened. We can find no approach to this in Praxiteles, and doubtless it was by this reversing of the proportions of body and limbs, which Polycleitos had introduced, that the works of Lysippos were most readily recognised in his day. In principle this changing of proportions was no novelty; for in archaic art, it was the rule for men to have short bodies and long limbs. But in archaic art the shortness of the body was as much overdone as was the length of the limbs.

What Lysippos did was to revive the principle and to work it out with truthfulness to nature. Thus from the evidence of two Roman writers and from the characteristics of a statue of an athlete known as the *Apoxyomenos*, which being of marble is assumed to be a later copy of a statue in bronze by Lysippos, we learn that like Myron he had sought an escape in what was to him an appeal to the truth of nature. Only we must remember that in all such cases the appeal to nature was much controlled and kept in check. It was controlled by the fact that the artist merely appealed to nature to escape from certain traditions which did not satisfy him. As to the influence of the new type of athletic figure created by him we have

many proofs in Greek art as it was practised in Roman times. In particular we may notice two bronze statues found in Rome (Figs. 99, 100), the one representing a youthful athlete, the other a boxer seated and looking as the *animosa signa* of Lysippos may be supposed to have looked.

In dealing with sculpture in relief we have already noticed certain small works in bronze which appeared to illustrate some features in the art of Lysippos (Fig. 79). To these we may now add a series of bronze statuettes acquired at Paramythia in Epirus, not far from the site of Dodona. The first find occurred in 1792, when a Greek merchant passing through Janina observed a number of the bronzes in the hands of a coppersmith who had bought them for their value as metal, being specially attracted by the silver with which the eyes are inlaid. The Greek next sold them to the Empress Catherine of Russia, but she having died before the transaction was completed and her successors refusing to complete it, the bronzes were taken over by a Russian and a Pole in two shares. The one share is understood to be still in Russia. The other was afterwards acquired by Mr. Payne Knight, and bequeathed by him to the British Museum, with three others from the same find, which he had secured by other means. In 1796 an English traveller, Mr. Hawkins, visited the locality of Dodona and obtained two more of these bronzes.

It would be interesting to know that our bronzes had in their day had some association with the famous oracle, some of its odour of sanctity. One only of the figures is unmistakably connected with Dodona. It is a draped female figure having on her head a dove lying flat with wings spread. We are reminded that the

priestesses of Dionè, the goddess of Dodona, were called "doves," as to which Herodotus gives two explanations. The one, current at Dodona, was to the effect that two black doves had flown away from Thebes in Egypt, the one taking its flight to Libya, the other northwards to Dodona, where it settled on a tree and announced with a human voice that an oracle of Zeus was to be established on the spot. At Thebes itself Herodotus was told that some Phœnicians had carried off thence two priestesses, the one to Libya, the other to Dodona, where they sold them as slaves.

But the statuette to which we refer particularly as illustrating the manner of Lysippos is a figure of Poseidon (Pl. XX.) having the massive and powerful build suitable to the god of the sea. The left hand, we may assume, held out a dolphin; the right would have rested on a trident. It will be remembered that Lysippos was said to have made the heads of his statues smaller than before had been usual; and no doubt this was true of his typical figures of athletes; but it would not apply to a statue of Poseidon, for whom the type of a large imposing head with rough shaggy hair had been established in poetry as well as in art. For the rest, however, the statuette is perfectly true to the manner of Lysippos, in the proportions of a short powerful torso with long legs, in the love of strongly expressed natural forms, whether in bone, muscle, flesh or hair, with minute finish of detail.

It is consistent with the reputation of Lysippos for following nature, that he was a successful portrait sculptor—so successful, it appears, that Alexander the Great would allow no one else to sculpture his portrait. It does not follow that Alexander had the same strict sense of truthfulness in portraiture which



1

2

John Murray Albemarle Street

Bronze Statuettes.

1. Athena from Athens.

2. Poseidon from Paros.

Cromwell is reported to have had. Alexander had his defects like Cromwell. His neck was twisted to one side. But while there was nothing to be done with Cromwell's wart but leave it out or put it in, the crooked neck of Alexander could be made by a skilful artist into a charm, by simply choosing an attitude in which it would appear perfectly natural. That is what Lysippos did. He chose the attitude of standing with one foot raised, the body leaning forward and the face turned round towards the side. Very probably that was a familiar attitude with Alexander when he was not engaged in battle. At all events it disposed of the twist of his neck. A sculptor may very well have chosen this attitude for this special purpose and yet have for the rest set himself severely to reproduce the natural aspects of the face.

There is no bronze head of Alexander except in the equestrian statuette in Naples, but there is in the British Museum a marble head which is believed to be the best portrait of him that exists and to be nearer to the original of Lysippos than any other. At all events it is an admirable example of Greek portraiture and has this advantage also, that it was found at Alexandria, the town which the young conqueror of the world founded, and in which he was buried. It is a portrait in which nature has been followed in her essential forms, as may be seen in the rendering of the mouth, the eyes, the cheeks, and brow. But along with this striking truthfulness the sculptor has combined at every point the touch of an artist. Because a feature was bad it was not necessary to model it badly. He has dispensed with exactness in his treatment of the hair and has taken a course between the actual aspect of the hair at any one time and the necessity

for a permanent aspect such as was required in sculpture. For an example in bronze to compare with this head in marble we may take the head of an Æthiopian in the British Museum, here represented (Fig. 96). It has the same strongly marked individuality, the same effectiveness as a portrait,



Fig. 96. Bronze head; life size. From *Cyrenè*. Brit. Mus.

and the same attaining of this effect by a broad and dignified treatment. I believe it was only in this sense that Lysippos was true to nature.

It is usual to associate with the school of Lysippos the bronze head of an athlete found at Olympia some years ago and now pretty widely known by means of casts. These casts have more than anything else

familiarised us with what Greek sculpture could do in the matter of portraiture. Portraits of Greeks had been common enough before in our museums, but most of them had passed through the hands of copyists in Roman times, and though they may have preserved the actual likenesses, they had lost, as was always suspected, the artistic touch of the original sculptors. The bronze head from Olympia makes plain what the original touch of a Greek sculptor was like. It is the head of an athlete to whom a portrait statue of bronze had been erected on a spot which to an athlete was the centre of the world. This athlete had doubtless won in many contests. One would think that he must have been past the age of contending in public games and that his portrait statue had not been made till a later period of life. But from the time that athletics became a profession it was regular enough for men to go on with it as long as they were fit. So that there is every reason to suppose that our athlete had won a victory at the age at which he is represented in the bronze. The face speaks for itself as to its perfect truthfulness. It is, moreover, true to a comparatively low type of mankind, and this itself presented a difficulty which was only to be overcome by a broad treatment of the face, side by side with the actual seizing of the expression.

But if the face was not of an attractive type the hair and beard were free from any such taint. It is amazing to see with what skill and labour they have been worked out, true in general to the conception of a thick shaggy beard and unkempt hair, yet true also to the notions of bronze sculpture of the day, those notions which prescribed short locks starting in a thick mass and ending in fine formal curls. Greek sculpture in

bronze seems never to have got rightly beyond that method. Though perhaps not the best that could be done, it was certainly an advance on the older manner when it was easy to reproduce the fashion of wearing long hair gathered in braids twined round the head. It was in fact a formidable difficulty which the change of fashion to short loose hair presented to the sculptors of the day, and possibly they would have overcome it better if, like the great Florentine sculptors in bronze, they had been untrammelled by the traditions of their art. But the Greeks liked nothing less than parting from their traditions by a bold step.

We may set beside the old athlete's head a bronze foot also found at Olympia. At first sight it seems an absolute cast from nature, so true is it in its general aspect. It is the foot of some athlete, possibly a runner, whose statue had been set up at Olympia. But whether of a runner or not, it is clear that the sculptor has gone straight to nature and has found before him a not very high type. He has contrived to be perfectly truthful, and yet has managed to keep in the background the fact that the foot is of a comparatively low type, the type of a professional athlete. He has succeeded, because he respected his art no less than he respected nature. Previous training came to his aid. He knew what an ideally beautiful foot was like, and consciously or unconsciously that knowledge operated in the way of throwing an air of dignity round what would otherwise have been a realistic performance. Nevertheless it is hardly right to associate this bronze with the sculptor Lysippos, as is sometimes done. In his work, however much ancient writers may have praised his truth-

fulness to nature, there must have been more of the old ideal manner.

We read of a sculptor, Silanion, of the school of Praxiteles, who in making a figure of the dying Iokastè managed to put a deadly pallor on her face by mixing his bronze with silver. How this was done, is not said; but it is conceivable that he may have merely plated the face with silver by a process which is to be seen still on certain Greek bronzes. Or he may have cast the head separately, putting a large proportion of silver into the alloy. In any case he was clearly in search of an effective means of expressing emotion. We are told, further, of this sculptor Silanion, that he made a portrait of a brother artist who was notorious for fastidiousness in reference to his own work and for the fits of passion which this induced. In the portrait these qualities were so well-seized that an ancient writer describes it as a bronze figure of Anger, not of a man.

Another sculptor, Aristonidas, in making a bronze statue of Athamas, desired to represent in his face the sudden revulsion of repentance which followed on his having dashed to the ground his infant son Learchos. To help out this expression the sculptor is said to have mixed iron with his bronze in such a manner that the rising shame in the face was indicated by the reddish rust of the iron showing through the glitter of the bronze. That again is a process which may be understood in various ways, if it is understood at all. The one fact that is certain is that it was an attempt to produce the emotion of blushing.

These instances will show that between the time of Praxiteles and the Laocöon group there had been growing up a desire of expressing strong emotion in

the face. We shall see that this movement was accompanied by a considerable disregard of the principle which in the good times had insisted on powerful emotions being confined as far as possible to beings of a lower nature, placed in subordinate positions in the design.

We must be prepared to find in approaching the period of the Laocöon group not only strong emotion in the faces of exalted persons such as deities and heroes, but also a large accession to our list of beings of a lower nature to whom violence of feeling and of passion is appropriate. As examples for the moment take the well-known figure of the dying gladiator in Rome, a Gaul in the very act of dying from a deep wound in his side; anguish is expressed in every feature and pain in all his limbs. Or again there is a mine of sorrowful expression in the Amendola sarcophagus, in the Capitoline Museum, with its series of reliefs representing combats between Roman soldiers and Gauls. There you will find forcibly rendered among the Gauls, but only among them as the inferior order, the pain and anguish of mortal wounds, the fury that accompanies a stroke delivered in deadly encounter, despair at the sight of an impending blow from which there is no escape. Among the women of the Gaulish camp it would seem as if every attitude capable of expressing dismay, sorrow, or grief had been brought into use by the sculptor ('*Mon. dell. Inst.*, i. Pls. 30, 31).

The story of Laocöon was that while engaged with his two sons in offering a sacrifice by the seashore near Troy two gigantic serpents had suddenly wrapped the father and his sons within their coils. One of the sons, it is thought, succeeded in escaping,

the one who in the group is seen pushing a coil off from his foot. It is, besides, inferred from an ancient writer that one of the sons did escape with his life. If that is so, then there is some little comfort to be derived from the marble group. Meantime the fortunate youth is in an agony of terror. For his less fortunate brother there is plainly no hope. Laocöon himself still struggles with such of his limbs as are free, against his inevitable and immediate doom. It was horrible to perish from the coils and fangs of loathsome serpents.

Here, then, we have a priest of noble birth and of a fine form, yet with an expression on his face that cannot be regarded as other than repulsive. It seems to be a mistake, this combination of beauty of bodily form with repulsiveness of expression on the face, and we can see no explanation of it except that the group had been sculptured under the influence of what is called the Pergamon School, which just then revelled in representing battles of gods against giants with legs formed of serpents, or battles between Greeks and Gauls. In these cases, however, the exhibition of strong emotion was confined for the most part to the giants and the Gauls, both of which were lower races of beings, and as such could rightly be made to express any degree of feeling that was desired, provided they were kept in subordinate positions, which, unfortunately, they were not. Under the influence of this school the sculptors of the Laocöon group may be conceived as casting about for a subject nearly akin to those just mentioned. The story of Laocöon would commend itself the more readily that its natural home was in that very region of Pergamon. The serpents of the story would fall in very

well with the serpent-legged giants of the Pergamon sculptures. It is a curious coincidence also that the sculptors of the group were a father and his two sons. What their fate in life was, is not told; but it is certain that this group of sculpture from their hands has produced among archæologists a long series of struggles which may almost compare in intensity with those of the original.

Let us notice a little further these sculptures of Pergamon. They are now in Berlin, where they constitute a long series of figures in high relief and on a colossal scale of proportions. They are much admired in Germany, where force and vigorous action are highly appreciated. But admiration of these sculptures is not confined to Germany. They appeal to everyone who cares for a skilful handling of the human form with a sound knowledge of it in detail, and with an appreciation of its beauty. They exhibit invention also in abundance. But that is the point where they seem to go wrong. The invention is not of a good kind. For instance, in one of the groups may be seen a serpent-legged giant in the attitude of encountering the father of gods and men, whose eagle enters into the conflict, and seizes the serpent by its lower jaw, no doubt effectually. Upon this it may be remarked that it is a perfectly true and just observation of nature to make an eagle attack a serpent. That had often been observed before by Greek artists. But here we have the novelty of the eagle, which was the symbol of Zeus, or at the most his messenger, actually rendering him aid in a combat: and the further novelty of the serpents which form the legs of the giant, also entering into the fray.

Under Fig. 97 we give a marble head in the British

Museum, from which the general style of the Pergamene School may be easily gathered, with its love of passionate expression pervading every detail. The statue of a boy picking a thorn from his foot (Fig. 98) has none of the strong passionate impulse which the

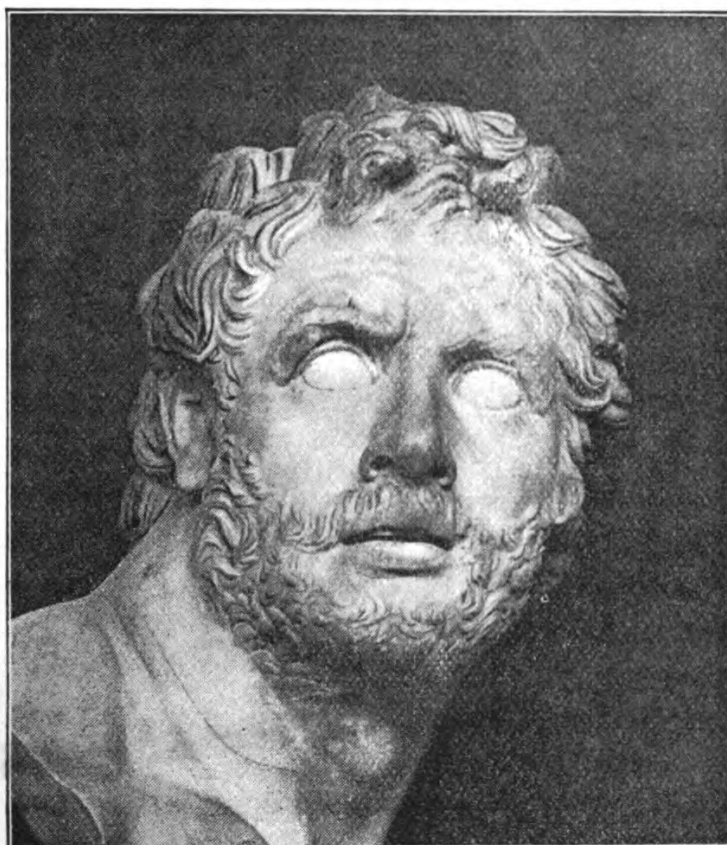


Fig. 97. Marble head, so-called Diomedes. Pergamene style.
Brit. Mus.

Pergamene sculptors felt. And yet it may perhaps fairly be assigned to the same period—a period in which close observation of nature in her lower forms of life accompanied a passion for the ideal forms of deities. At all events the figure is an interesting example of realism as practised in the later ages of



Fig. 98. Marble statue of a boy picking a thorn from his foot.
From *Rome*. Brit. Mus.

great art—all the more interesting, because we have in the bronze Spinario, in the palace of the Conservatori, Rome, the same subject treated in an archaic manner, with which an instructive comparison may be made.

Side by side with the desire of seeing strong emotions expressed in beings of a lower order, there grew up also in later sculpture an increased love for the gentler feelings which distinguish persons of a finer nature. Groups of sweet brotherly affection such as existed between Orestes and Pylades; of sisterly love, as between Electra and Orestes; of motherly tenderness as between Meropè and her son, and much else of the same kind; these were the subjects which Pasiteles and his followers delighted in for three successive generations; and as this was the last phase of Greek sculpture proper, it is gratifying to observe that in it the old rule had reasserted itself, that whatever feelings were to be expressed, a special type of physical beauty must be found to convey them. No doubt, in this case the range of feelings was very limited. It included for the most part only such as could be reconciled with, and were most natural to, youthful forms, advancing towards manhood and womanhood. In general that is the age of sentiment, and among persons of that age it is often difficult to say whether it is the sentiment they express or their physical beauty which ennobles them the most, so completely are these qualities reconciled in them.

Towards the close of the archaic period in Greece there was displayed a marked tendency towards what may be called a sentimental expression. A strong stream of idealism swamped this tendency and carried it along with such force that only now and then was it able to

show its head, till at last, in the early part of the 1st cent. B.C. it was, so to speak, rescued by Pasiteles. That sculptor was a man of many accomplishments, among them being a close study of the old Greek masters in his art. He is said to have written a large book on the subject, and though that may not have been the best employment for a sculptor, yet it is clear from his activity in other directions that the writing of the book was not undertaken to fill up vacant hours, but rather to influence his contemporaries, if not perhaps also to defend the style which he had himself recovered and reintroduced in a more amplified form. He was praised for the carefulness and elaborateness of his preliminary studies, and for his modelling directly from nature. The sculptures of this school derive their pose and structure in the main from an archaic Greek type.

But the sentiment which pervades them, the sensitiveness to skin and flesh, the delight in observing the minuter formations of bone, as at the knees and feet, the softening down of outlines where they are apt to be harsh in nature and the general fluidity of forms which is made to accompany the severe and almost rigid structure of the limbs—these characteristics, though not altogether at variance with some of the sculpture of archaic Greece, are yet sufficiently so to justify us in tracing the introduction of them into sculpture to Pasiteles and his school. To these sculptors a youth just passed out of boyhood was not only the best possible model of sentiment, but he presented also a new source of attraction from the fact that his natural proportions, being neither those of a boy nor of a man, being unusual in art hitherto, were calculated to arrest attention at first sight, and so

to make more easily recognisable such refinements in the modelling of details as were indulged in. But the leading motive for the selection of this youthful type appears to have been, as I have said, the fact that of all other human types it is the one which is most perfectly reconcilable with the expression of sentiment to the advantage of both. You may find sentiment often enough in persons of greater age, but in those cases the true balance between it and the bodily forms has been lost, an inclination to sentiment has got the upper hand, and if such figures are introduced into art it must be at a loss, from a Greek point of view.

If we have spoken of Pasiteles and his school in such a manner as to suggest that the first and governing impulse with them was a study of a particular class of emotions, and that the finding of a type of figure most suitable for the expression of those emotions was a thing that did not dawn upon them till afterwards, we ought to correct that impression so far as to allow that the school of Pasiteles may equally have obtained its end by the opposite process of starting from a technical delight in observing the finer details of the human figure and then proceeding to the consideration that those finer details are best seen in figures of youths in whom sentiment is at its purest. These sculptors would then be driven, as a last resort, to the study of sentimental emotion, though this may seem an over-subtle distinction to draw when the result after all was the same.

During this time technical skill, such as was to be expected when for several centuries sculpture had been one of the most active professions in Greece, abounded everywhere, and being obliged to seek out novelties,

found them most easily in combinations of the various styles of the old masters. Now and then it struck

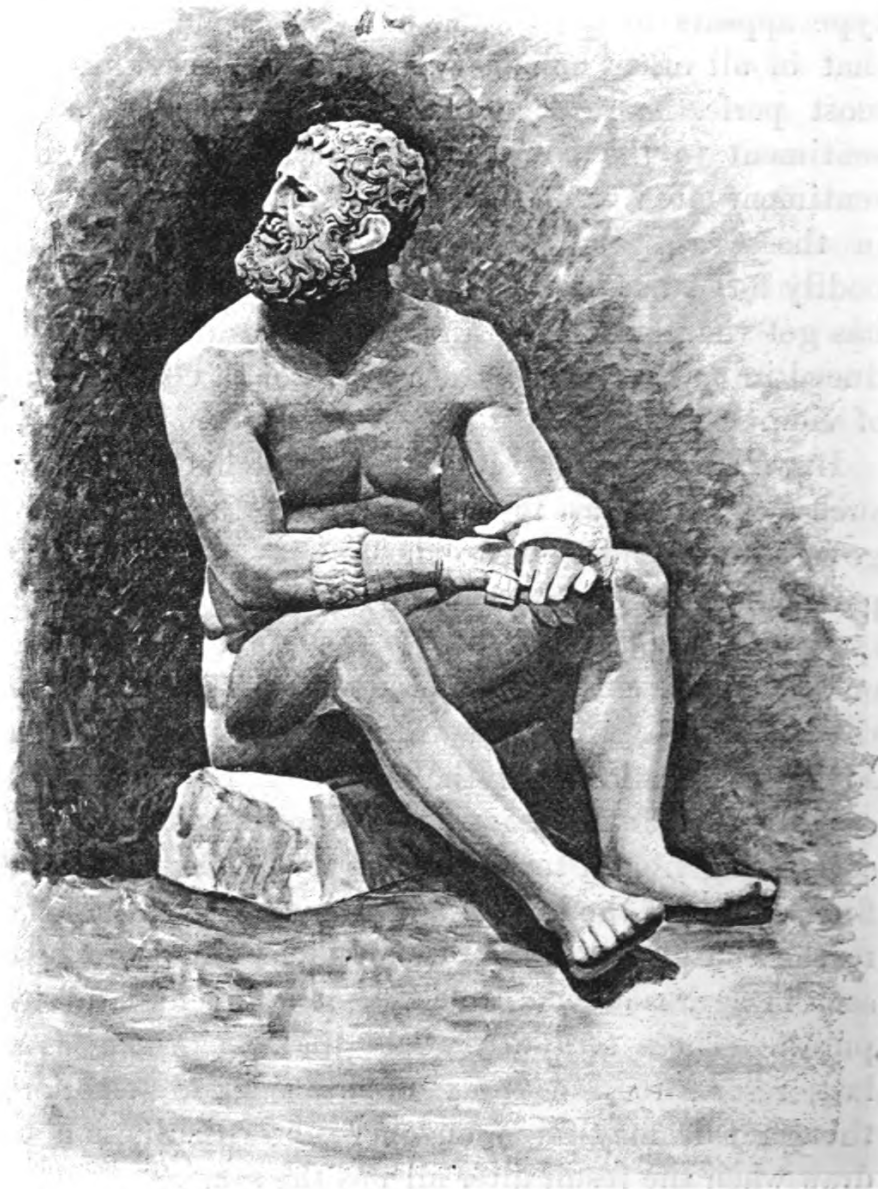


Fig. 99. Bronze statue of boxer. Found in Rome; now in Baths of Diocletian.

out into a successful line, as did the school of Pasiteles in Rome. But on the whole we may say that it was

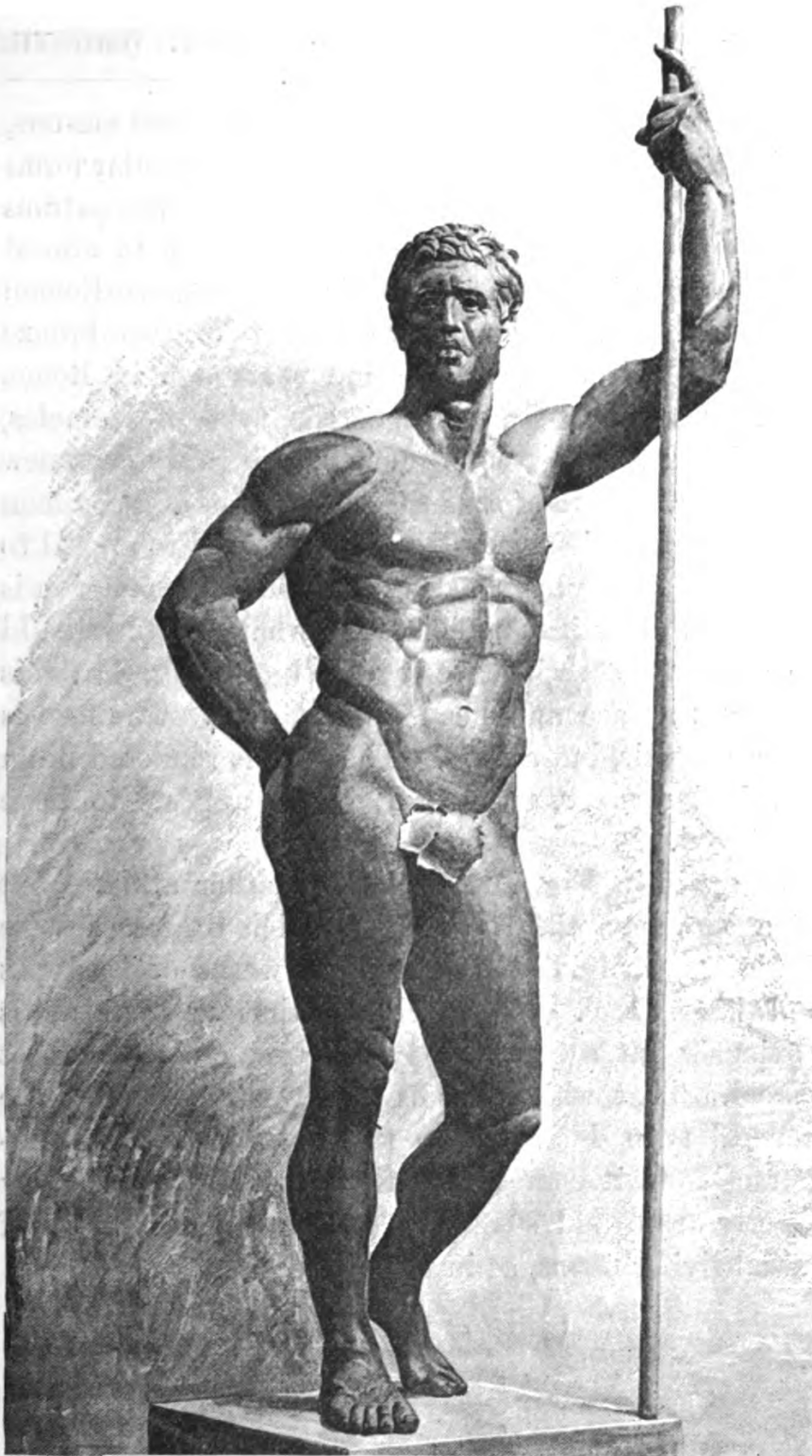


Fig. 100. Bronze statue of athlete. Found in Rome; now in Baths of Diocletian.

the influence of Lysippos, the last of the great masters, which prevailed the most. His strong muscular forms appealed to the Romans, who now became the patrons of the Greek artists. We see the effect in almost innumerable instances of what is called Græco-Roman sculpture. In particular we may take two bronze statues which were found some years ago in Rome. Fig. 99 represents a boxer of the type of Heracles, seated and looking round eagerly, as if ready for a new encounter. In the forms the observation of a common kind of nature is true and well calculated to appeal to a sense of mere physical combat. But the execution is not true to any just perception of what a statue should be as compared with a coarse living being. In this respect the face and head are different. The face is not a portrait, but a type. The hair is rendered in an idealised manner, such as Lysippos appears to have employed.

So again in Fig. 100 we have another athlete, but of a more youthful type, for which examples were doubtless easily obtained from the works of Lysippos and his school. So much so that this statue is obviously but a coarse copy of a type created by that school. That which makes it attractive is only the general type derived from this source. What is unattractive in it comes from the failure either to copy exactly or to add some new and fresh observations of actual living forms, as in the boxer.

NOTE ON GILDING, ETC.

It is related that the Emperor Nero, in his intense admiration for a bronze statue of Alexander the Great by Lysippos, of which he had become possessed, ordered it to be gilded, but that after a time becoming tired of its glittering appearance, he commanded the gilding to be removed, whereupon it was remarked by Pliny (N. H., xxxiv, 63) that the statue gained much in beauty notwithstanding the scratchings and abrasions which had been left on it from the process of gilding. That will readily be believed. But the point that interests us for the moment is how to explain the ancient process of gilding bronze. As to the wide-spread taste of the ancients for gilding on silver, bronze, wood, and other materials, we are left in no manner of doubt. As early as the time of the Odyssey we read of a goldsmith gilding the horns of an ox that was to be sacrificed. Apparently there were two processes in use, the one consisting of thin leaves or bracteæ of gold, which were fastened in their places by some sort of solder or cement. Among the disadvantages of this process, at least as regards public statues, was this, that thieves acquired the art of detaching the leaves of gold, and making off with them. The second process in gilding on bronze or silver appears to have been to make first an amalgam of gold and quicksilver, and then to cover the object with this amalgam. The quicksilver would seize upon the surface of the bronze and carry in the gold with it, thus producing a gilded covering for the whole figure. Assuming that Nero's statue had been gilded in this manner, we can understand how the

removal of the gilding would leave the scratches and abrasions of which Pliny speaks.

Of gilding on silver we have several examples where it appears that the process just described, of an amalgam of gold and quicksilver, has been employed. The gold is thicker than would be used now. It is seen detaching itself in places from the silver in leaves which show its thickness. Very likely there was not in regular practice a fixed proportion of gold to quicksilver. On the other hand we possess several Greek mirrors or mirror-cases of bronze, with designs which have been incised in outline and then plated over with silver. The silver is extremely thin and can hardly have been put on in laminæ, as it undoubtedly was in later instances. It seems rather to have been made into an amalgam, and then, so to speak, painted on to the bronze. We may mention here a large bronze statuette of a Roman Emperor, which was found in England, and is now in the British Museum. The cuirass of the emperor is richly decorated with floral patterns, partly plated with silver and partly inlaid with some substance like niello. But we must not forget that this art of plating bronze with silver or gold is proved to have had a very high antiquity, by the bronze dagger found at Mycenæ (Fig. 41), on which figures are inlaid with silver and gold.

As regards the process of enamel on bronze, some have argued that it was an invention of the Celts and was unknown to the classical nations till late times, when they heard of it from the Celts. The argument is based partly on the statement of a late Greek writer, Philostratos ('Imag.,' i. 28), who speaks of the bright colours which were fused on to the bronze trappings of horses, by the barbarians living beyond the Straits

of Gibraltar (ἐν ᾿Ωκεανῶ), which would include the ancient Britons. There is also the fact that in Gaul, Britain, and the west of Europe many specimens of bronze fibulæ, vases, and other objects, have been found, on which patterns of very bright colours have been made in glass paste and fused on to the metal. The designs are as rude as the colours are bright, and there is no question of the date because Roman coins have been found with some of the specimens. The process was to incise and groove out the patterns on the surface of the bronze. Into these grooves, forming generally floral or geometric patterns, the glass was laid in the form of a paste, and then fused. The colours were mostly red, white, blue, and green, such colours in fact as were frequent among the cubes of glass employed in ancient mosaic work. The patterns were very limited in number. We have the same design recurring over and over again. The best example that is known is a bronze vase in the British Museum, which was found in Essex, but was unfortunately much injured by a fire at Easton Hall in 1847.

CHAPTER VIII.

TERRA-COTTAS.

"Αδην Προμηθέος ἄδην πηλοῦ.

Greek proverb: see DIO CHRYSOSTOM, Orat. 37.

THE Greek traveller Pausanias describes the district of Tanagra as inhabited by potters.¹ But the significance of his words was not recognised till 1873, when a long line of tombs was found there containing many terracotta statuettes. The beauty of them captivated the public taste. A rush was made on these tombs, and before the excavations could well be stopped a large number of the statuettes were on their way to the Museums of Europe, public or private. From that moment they have been a constant source of admiration; and yet they are no products of a high, ambitious art. They represent usually subjects from daily occupation, or youthful ideal figures, interesting from their costume, and especially for the hat they sometimes wear (Fig. 101), suggesting the reference to

¹ IX., 19, 5. He says that the population was scanty, but that the men were potters (*γῆς κεραμεῖς*). But that what was only a small industry in the time of Pausanias, 2nd cent. A.D., had been extensive in the older and better times, is proved by the vast number of terra-cottas found in the district. His statement is interesting as a proof of the continuance of an old industry in a place where it had once been prosperous.

Sophocles ('Œd. Col.,' 314), *κρατὶ δ' ἡλιοστερῆς κυνῆ πρόσωπα Θεσσαλὶς νιν ἀμπέχει*. The attraction exercised by these figures from Tanagra may be judged from the numbers of them that have been engraved and published in almost every form, from the costly volume of coloured designs issued by the German Archäologisches Institut, under the editorship of Prof. Kekulé (Stuttgart, 1878), to the slight outlines of the 'Gazette des beaux Arts' (xi. 1875, pp. 297 and 551, and xii. 1875, p. 56), and other publications, such as Rayet's 'Monuments de l'Art Antique.'

Next in rank to Tanagra for the number of interesting terra-cottas which it has yielded, is Myrina, in Asia Minor, where the French carried on extensive excavations in 1880-82. The results appear in the work of MM. Pottier and Reinach, 'La Nécropole de Myrina,' 1887, with numerous plates, and containing, among other interesting matter, a detailed account



Fig. 101. Tanagra statuette.
Sabouroff Coll., pl. 103.

of the processes employed in producing the statuettes: *e.g.* the quality of the clay, with its differences of colour, due partly to differences of firing and partly to materials employed in the preparation; the moulds, of which a large number were obtained, many of them bearing the names of the artists who made them; and the various methods of colouring the statuettes. In these respects the Myrina terra-cottas do not differ from those of Tanagra. But in an artistic sense they are readily distinguishable by a degree of coarseness and voluptuousness which is wanting at Tanagra, by a greater love of nude forms, and by a strong desire for groups in which accuracy is sacrificed to picturesque effect.

Among the other Greek localities which have furnished numbers of terra-cotta statuettes, bearing more or less the same stamp as those of Tanagra, may be mentioned Naucratis in Egypt, the Cyrenaica, Thapsus, Sicily, and Magna Græcia. We mention these localities in particular, because the terra-cottas from them have in each case certain peculiarities of treatment which seem to indicate local production, or, if not a peculiar treatment, at least a noticeable variety in the clay of which they are made. For instance the terra-cottas from Cyrenè include as a sort of speciality, a type of female figure having a modius on her head and an extraordinary ornament stretched across and covering her breast. The modius on the head was a symbol of the goddess Demeter, and possibly the curious breastplate was a suggestion of the fertility of the earth, comparable in a measure to the many breasts of the Ephesian Diana. These terra-cottas from Cyrenè are as a rule of a poor workmanship.

At present it is difficult to say from what source the coroplastæ, whether at Myrina, Tanagra, or elsewhere, derived their inspiration. It is clear that they obtained the name of coroplastæ or makers of



Fig. 102. Tanagra statuette. Sabouroff Coll., pl. 108.



Fig. 103. Tanagra statuette. Sabouroff Coll., pl. 113.

youthful female figures, from the prevalence of such figures among their works.¹ That is attested amply

¹ Lucian, 'Prometh.,' 2. The Athenians called any worker in clay a 'Prometheus:' τούς χυτρέας καὶ ἱπνοποιούς καὶ πάντας ὅσοι πηλοργοὶ Προμηθέας ἀπεκάλουντο. Sophocles, in a fragment that

by the vast numbers of female figures that have survived. But what was the motive in so consistent a choice of these draped youthful female figures? One obvious answer is this, that a figure draped to the feet provided at once a broad base on which it could stand without the danger of being broken, which a nude figure resting only on its feet was always liable to (Fig. 102). That this was one of the motives in question is further apparent from the fact that when male figures, as of boys, are represented, they are usually made to sit on a rock, so as to secure a broad and firm base. Sitting or standing, the great majority of the figures are young women (*coræ*) and the makers of them are rightly enough called *coroplastæ*. And it is a fair argument, that just as the place of girls was home, so also the destination of these figures was to be ornaments of the house and home. It is true that they are mostly found in tombs, but that does not imply that they were made specially for tombs any more than that the deceased persons beside whom they were laid were made specially for the tomb. That was a necessity, not a choice. Had the terra-cottas been made for tombs, like the Athenian painted *lekythi*, they would have represented appropriate subjects, which would have placed their purpose and origin beyond dispute. It is not denied that some of them were made with this purpose. It would be strange in so wide a series of figures if it were not

has survived from his 'Pandora' (Nauck, 'Trag. Gr. Frag.,' p. 188), says *καὶ πρῶτον ἄρχου πηλὸν ὀργάζειν χεροῖν*. The word *ὀργάζειν* is explained by Pollux (vii., 165) as equivalent to the older expression *ὑγραίνειν*, to moisten the clay and work it through the fingers.

so. But the vast majority point to domestic ornament.¹

In this connection another question arises. Is it not equally true that the vast majority of bronze statuettes were made for domestic ornament? And is it not the case that these bronze statuettes present us with the greatest possible variety of subject? They are endless in their subjects. There is no uniformity among them, as among the terra-cottas. Gods and goddesses are even more numerous than figures from daily life. These bronzes stood as ornaments on the tops of candelabra, were affixed to vases, formed stands of mirrors, and possibly also were often kept apart in small shrines, such as the sacrarium represented at Pompeii, serving in fact as household gods. If temples like that of Diana at Ephesus contained, as we know, large numbers of silver images which were brought out on festal days, it is conceivable that in dwelling-houses also something of the kind, but on a small scale, found a place. Unfortunately no ancient Greek dwelling-house has survived. In the main we have to fall back on Pompeii, which after all was a

¹ M. Heuzey, in the 'Comptes-rendus' of the 'Académie des Inscriptions,' 1882, p. 388 fol., would allow this of the Tanagra statuettes and their like, but he argues that the original idea had been to introduce into Greek funeral customs the customs of Egypt, in placing images in the tombs with a definite religious import. He seeks to prove this by tracing certain types which are common in Greek tombs, as a female figure holding a flower to her breast, figures of nurses, of Sirens and Harpies, to Egyptian originals. In his view the Greek female figure holding a flower to her breast is a modification of the Egyptian figure holding her hand to her breast; the figures of nurses are Greek varieties of Isis holding Horus on her knees. Sirens and Harpies are adaptations of the bird which in Egypt symbolized the breath of life, or of the winged disk of the sun.

Greek town, and to argue back from it with such references as may be gathered from Greek literature. There is one reference which may be of some use. Plato ('Conviv.,' 39, 40, 44) makes Alcibiades describe the personal appearance of Socrates, by comparing him to one of those figures of Silenos which were to be seen in the workshops of the sculptors of Hermæ. At first sight, he says, one sees a figure of Silenos playing on the syrinx or the flute, but when you open the figure you find within it the figure of a god. We have thus the fact that figures of Silenos were frequently made so as to serve as a sort of cupboard in which a figure of a nobler being, a deity, was placed and preserved. Hermæ, or Terms, as they are more frequently called, were made in the shape of square pillars surmounted by a head or bust. The pillar itself was, according to Plato, hollow and in the nature of a cupboard—most probably it was of wood. Figures of Hermæ representing Dionysos or Silenos are frequent on the painted Greek vases, and if we could believe that they always contained within them some nobler deity, that fact would relieve us of many thoughts adverse to the Greeks. But for our present purpose it is enough that these Terms prove the habit of keeping images of deities enclosed in a sort of cupboard. Beyond this we know of no fact which proves the existence in Greece of the habit existing in Pompeii, of having a sort of shrine in which household gods were kept. But this one fact, in the utter absence of the remains of ancient dwellings in Greece, may be worth consideration.

Admitting that statuettes, whether of bronze or of terra-cotta, may have frequently been kept in dwelling-houses as images for religious purposes, we have still to remember that the vast majority of those that have

been found in tombs have no religious character. These at least must have served as mere domestic ornaments so far as we can see; and it is not improbable that they had come chiefly from the women's quarters in ancient houses. That would be the natural inference, from the prevalence of female figures, youths, and children among the terra-cottas, combined with the fact that on occasions of death and burial the women were in general the most affected. Witness the deathbed and funeral scenes figured on the attic lekythi. On a vase representing the death of Archemoros¹ are two persons carrying on their heads a number of vases placed on small tables, these vases being intended for a sacrifice, after which they might be, and very often were, placed in the tomb. No one would care to use again vases which had served in so melancholy a ceremony. Similarly we may suppose that figures of terra-cotta which had originally served as domestic ornaments, were employed on occasions of death to adorn the chamber of the deceased and thereafter to be placed in the grave, packed together not infrequently in large earthenware jars. What we are certain of is that they were found in tombs, and that they have no relation to the tombs in the subjects they represent.

It is clear that figures of deities were used for domestic worship, as in the case of a small clay figure of Hephæstos mentioned by the Scholiast of Aristophanes ('Aves,' 436) as seated at the hearth in the character of Ephoros of the fire. Among other deities Aphroditè, Artemis, Eros, and Hermes may be said to have been fairly identified. Scenes from daily occupations are frequent; so also are dolls and play-

¹ Gerhard, 'Ges. Abhandlungen,' Pl. 1.

things, more or less comic, such as the graves round Corinth still yield in numbers.

Except the earliest examples, which are rudely modelled with the hand, these statuettes are made from clay moulds, many specimens of which still exist (Fig. 104 shows the mould on the right and the cast from it on the left). More correctly, only the front of the figure is made from the mould, the back of it being as a rule merely a plain piece of clay formed by



Fig. 104. Terra-cotta mould of statuette. *Tarentum*. Brit. Mus.
Ht. $9\frac{1}{2}$ in.

the hand. Or when the design is carried round the back, as in forming the head for example, it appears to have been usually executed by the hand. Even in the beautiful group of *Astragalizusæ* in the British Museum, the back of which, contrary to what is customary in terra-cottas, is not without considerable attractions, the modelling seems to have been completed in this manner. It was necessary that there should be no undercutting in the mould, which would obstruct the removing of the figure from it. Or if

any injury were done in the removing, it would be necessary to restore it afterwards with the hand, just as it was necessary to carry out afterwards in this way whatever part of the design could not be expressed in the mould. The scope thus allowed for variety in the finishing of the figures enabled the coroplastæ to give a different appearance to figures from the same mould, in which also he was greatly aided by freedom in the use of bright colours.¹ For example, there are in the British Museum two masks from Camiros in Rhodes, the faces of which have been made from the same mould (similar to Fig. 105). Yet, beyond the face and in the colouring, there are considerable differences. To produce a mould the first step was to model the desired figure in clay or in wax; if the former material, a core of wood was used, which was called *κάναβος* (Pollux, 'Onom.,' vii. 164, and x. 189); if in wax, the model was next covered with clay and subjected to fire, upon which the wax melted away, leaving its impression on the clay covering, which then became a mould.² This clay covering is called *ἡμίλιγδος* in Pollux ('Onom.,' x. 190), and from his description it would appear that the clay was pierced with a number of small holes for the escape of the vapours rising from the melting wax, whence the *ἡμίλιγδος* was compared to a shield pierced by many darts. Of late years Tarentum has yielded a considerable number of moulds for the making of terra-cotta statuettes. Most of them are of a comparatively late period, from the 3rd to the 1st cent. B.C.,

¹ τῶν δὲ κοροπλάθων ἴδιον τὸ τὰ χολοβαφῆ βάπτειν, Pollux, 'Onom.,' vii. 163.

² Dio Chrysostom, Orat. lx. 25, says: καὶ γὰρ ἐκεῖνοι (κορόπλαθοι) τύπον τινὰ παρέχοντες ὁποῖον ἂν πηλὸν εἰς τοῦτον ἐμβάλλωσιν ὅμοιον τῷ τύπῳ τὸ εἶδος ὑποτελοῦσι.

and it is curious to find among those of them in the British Museum an instance of a mould which has been expressly made to imitate an archaic phase of art (Fig. 104). It represents a draped female figure, and at first sight has the appearance of belonging to Greek



Fig. 105. Terra-cotta bust. From *Greece*. Heuzey, Pl. 19, Fig. 1.

art of the end of the 6th cent. B.C. But in fact it is not uncommon to find among terra-cottas of a distinctly late period others which in general would be taken to be archaic. In some cases the old moulds may have been handed on from age to age ; but mostly it was

the taste for a particular archaic type of figure that had survived or been revived, new moulds being made to imitate the archaic type.

In most cases the colours are simply painted on the terra-cotta and easily destroyed, yet instances are not uncommon in which the whole figure is covered with a glaze which gives it the appearance of an enamelled surface. A series of statuettes in the British Museum found at Centorbi (Centuripæ), in Sicily, have the surface enamelled with a pink or livid colour, these colours being most conspicuous on the nude forms. On the draperies an enamelled surface was of less effect and was more seldom employed. In the best period of this glazed ware the colour is a uniform white. Somewhat later we find white, brown, and green, as in the unique vase from Tanagra, in the British Museum, in the form of a goose, on which rides Eros. Apparently this is a revival of a process which may be seen in certain archaic vases from Camiros, either made or influenced by Phœnician processes. In late Greek and Roman times there is the green glazed ware.

It has been thought strange that so prolific a profession as that of the coroplastæ should not have reproduced some of the celebrated statues of the Greek masters; and in one case an attempt has been made to prove that the not uncommon group of one female figure carrying another on her back (similar to Fig. 106) is a copy from a group of Demeter carrying Persephonè, by Praxiteles, known generally as the *Catagusa*. But in the first place there are doubts as to the meaning of *κατάγουσα* in this instance, a German archæologist having interpreted it as "spinning" (Loeschke, 'Arch. Zeitung,' 1880, p. 102). While there is no good reason for this interpretation, the fact remains

that there is no authority for assuming Praxiteles to have represented Demeter and Persephonè in this attitude, even if he did represent the one carrying or conducting the other. It is the attitude of play, and of a momentary or at least very short act, and may rather be classed with the numerous scenes from daily life. These groups are published, and the theory of a Praxitelean origin of them strongly advocated, by



Fig. 106. Group from Centorbi, in Sicily.
Brit. Mus.
Ht. 1 ft. 1 in.

M. Rayet, in his 'Monuments de l'Art Antique.' So also in Fig. 114 we may trace a famous statue by Calamis. But probably there is not among terra-cottas any specimens so obviously copied from a statue as the figure of a Diadumenos (athlete binding a diadem round his head), which was found near Smyrna some years ago and now belongs to Mr. Blacker in London. It will be found published in the 'Hellenic Journal,' 1885, Pl. 61.

So far our observations and remarks have been confined for the most part to terra-cottas of the Tanagra class. We may be said to have begun at the end of our subject; for undoubtedly these terra-cottas belong to a late phase of Greek art. Some explanation is therefore necessary, to justify this departure from the ordinary rule of tracing a branch of art from its origin to its close. In the first place one of the reasons why the Tanagra statuettes have proved so attractive is precisely the unexpectedness with which they come before us. No study of

other remains of Greek art or of older terra-cottas adequately prepares us for them. They appear as something quite new. A sketch of the previous history of working in terra-cotta would no doubt prepare us for the technical skill of modelling, finishing, and colouring. From that point of view there would be nothing in the Tanagra statuettes to surprise us. It is the artistic conception which is so novel and so fascinating. The all-important question is, under what influences did this order of artistic conceptions arise? In every artistic movement, every new phase of art, there are influences outside of art proper that have to be taken into account, and in this case we have to take into consideration the powerful impetus that was likely to have been derived from the contemporary literature, in particular from the poetry of the Hellenistic age, the poetry of Theocritus, Moschos, and Bion. To this period therefore the terra-cottas of Tanagra and their kindred are assigned. In comparatively modern phases of art there have been periods of productivity in which the results, attractive and beautiful in themselves, owe their principal charm to the manner in which they reflect the peculiar literature and cultivation of their time. So it was with the terra-cottas of the Hellenistic age. In form they are the offspring of art; it is poetic literature that has breathed into them their spirit. Like groups of Dresden or Chelsea ware they are more interesting as illustrations of the prevailing tastes of their day, than as products of strictly artistic development.

To this same Hellenistic age belong also the terra-cotta panels which had served as decorations in ancient houses. These panels, with the reliefs on them, had been made from moulds and were attached

to the walls by pins, the holes for which are generally visible. How far they may have been grouped together in continuous friezes or whether they were not rather, in most cases, isolated from each other, it is difficult to say. Each panel has a subject complete in itself, and this would favour the view that they were separated on the walls by some architectural division. It is true that these terra-cottas have been obtained almost all from Roman or Græco-Roman sites. But they represent a phase of art which had arisen in Greece during the Hellenistic age and under the influence of literature, in which one of the striking features was the attempt to combine idealism with realism. As in that literature, so in the terra-cotta panels we have the ideal forms of Satyrs, Bacchantes, Centaurs, Cupids, more or less in the forms in which the art of the 4th cent. B.C. had left them. But here, as we have already pointed out (p. 236), they are employed in scenes characteristic of daily life, as, for example, Satyrs filling a basket of grapes or standing on tiptoe to drink from the lip of a large vase brimful of wine (Fig. 81). It was forgotten that these forms had been originally created as ideals founded on the observation of nature.

Another favourite subject was that of Victory sacrificing an ox, much in the manner of the bronze relief which we have given under Fig. 76. But whereas in the bronze the Victory is closely draped, and thus follows the better model of the Victories on the balustrade of the temple of Athenè Nikè at Athens, on the terra-cotta panels they display the upper part of the figure and thus introduce a conception of Victory which was foreign to the tastes of the best time. The same conception is frequent on

ancient gems, or rather pastes, which there is every reason to assign to the Hellenistic age. Undoubtedly the figures of Victory both on the terra-cotta panels and on the pastes are of a noble type. Yet when compared with the bronze relief (Fig. 76) they seem more the result of acquired taste than of inspiration. The groups retain much of the old idealism. When they abandon it it is mostly for the sake of imparting some touch of realism where nothing of the kind was wanted. It has been said of the statuettes of Tanagra, that "standing midway between the ideal and the real, they owe much of their charm to this indefiniteness;"¹ and this is almost equally true of the reliefs on panels.

The terra-cotta panels in the British Museum have been published by the Trustees in a work entitled 'Ancient Terra-cottas in the British Museum,' London, 1810. Campana published his fairly extensive series in his 'Antiche Opere in Plastica,' Rome, 1852. Compare the work now in progress by Theodor Schreiber, 'Die Hellenistischen Reliefbilder;' and see H. von Rohden, 'Die Terracotten von Pompeii,' 1880, being Vol. I. of the 'Antike Terracotten,' edited by Prof. Kekulé.

The process of going backward, usually so difficult, is in the present instance relieved by the circumstance that terra-cottas of the class described up to now are separated from their predecessors by a period of several centuries, during which, to judge by the specimens in our museums, very little of importance was produced. It may be that our museums are imperfect in this respect, and that any day a new series of excavations may supply what now appears to be missing. But the fact is that, except for a few

¹ M. Heuzey in his article on the origin of the terra-cottas in the 'Comptes-rendus' of the Académie des Inscriptions, 1882, p. 388.

isolated examples, there is a wide gap between the terra-cottas of the Hellenistic age which we have been considering, and any older stage of the art that can be mentioned as being fairly represented in existing remains. Take, as an instance, the work by Prof. Kekulé on the 'Terra-cottas of Sicily:.'¹ Plates 15-53 are devoted to later terra-cottas more or less of the



Fig. 107. Terra-cotta head. Sicily. Kekulé, Pl. 8, Fig. 3.



Fig. 108. Terra-cotta head. Sicily. Kekulé, Pl. 12, Fig. 3.

Hellenistic age. Plates 8-14 give us heads of statuettes which may fairly be assigned to the great period of Greek art between the time of Pheidias and Alexander the Great (Figs. 107, 108). Plates 1-7 carry us back to the archaic date of the 6th cent. B.C.

¹ 'Die Terracotten von Sicilien,' being Vol. II. of the work edited by him, 'Die Antiken Terracotten.'

Similarly if we take such a collection as that of the British Museum, we shall find an even greater absence of terra-cottas belonging to the great period of art under Pheidias and his followers, while on the other hand the archaic terra-cottas are much more strongly represented than in Sicily. It is conceivable that during the great period of sculpture and painting the coroplastæ were unable to rise to the occasion. It is possible also that circumstances which we know nothing of may have tended to the destruction and loss of a great part of the terra-cottas produced in that period. But whatever the explanation, we must for the present be guided by the fact that there is on the whole a wide gap between the terra-cottas of the Tanagra and the archaic periods. We are therefore free to go back at once to the archaic terra-cottas.

In Greece the oldest application of terra-cotta seems to have consisted in the making of figures perhaps a little ruder, but still of the same kind as the accompanying Fig. 109, in which painted patterns are combined with a plastic rendering of the head; next followed decorations for the roofs and cornices of



Fig. 109. Very archaic image or xoanon. From *Thisbe*. Heuzey, Pl. 17, Fig. 3.

temples. According to tradition it was a Corinthian potter, Butades, who first made terra-cotta masks for the fronts of roof-tiles (*antefixæ*), that is for the cornices of temples.¹ His date has not been ascertained; his personality has been rendered slightly legendary; but the tradition embodies a fact otherwise known, viz., the importance of Corinth in early times—let us say the 8th cent. B.C.—as a centre of activity in the production of works in terra-cotta, having a powerful influence in Greece on the one hand and in Etruria on the other. This employment of terra-cotta was in time superseded by the use of marble for roof-tiles in temples, which is said to have been first introduced in Greece by Euergos of Naxos, whom Pausanias (v. 10, 3) confounds with his son Byzes. This occurred during the 7th cent. B.C. in the reign of Alyattes, king of Lydia. But either owing to the cost of the new material, or for other reasons, terra-cotta continued to be employed in smaller public buildings, if not in the erection of new temples on a large scale. A very careful inquiry on this subject with plates displaying the original colours and patterns of archaic terra-cotta cornices is to be found in a memoir by Doerpfeld and others, ‘*Die Verwendung von Terrakotten.*’ The designs of these cornices were made from moulds (*τύποι*), and one mould of a Gorgon’s head, for example, would be sufficient for a whole cornice. Uniformity of effect as regards artistic type was reduced by brightness of colouring. The Gorgon’s head is frequently represented on these *antefixæ*, doubtless in recognition of its property as a prophylactic or

¹ Pliny, N. H., xxxv. 152: “Butadis inventum est rubricam addere aut ex rubra creta fingere, primusque personas tegularum extremis imbricibus imposuit.”

deterrent. Next to it in frequency is a female head or bust to the front, but whether this head appeared to the ancients as that of a goddess, or as simply an ideal female head, we cannot say. In the interesting series of these terra-cottas which the British Museum obtained from Capua is to be noticed a figure of Typhon painted in bright colours of red, black, and white, recalling the Typhon in one of the archaic pediments on the Acropolis of Athens. In the same series is also an interesting group of Artemis holding a lion at each side, 'Artemis Persikè.'

The prevalence of female heads among the archaic antefixæ that have survived, is not precisely what we would expect after reading in Pliny (N. H., xxxv. 151-152) that Butades the potter, who first made 'faces' (personæ) for the fronts of roof-tiles had been led to this choice of design by having seen the outline which his daughter had sketched on the wall from the shadow cast on it by her lover's face, in lamp-light. Butades filled in the face with clay, and fired it with other specimens of his work as a potter. The portrait was preserved in the Nymphæum at Corinth till Mummius sacked the town. From such a beginning it would be expected that faces of young men would occur frequently among the archaic antefixæ. Such is not the case. Most of them are faces of young women, or Gorgons. At all events it is an interesting fact, that in those early times, the daughter of a potter had artistic training, enough to trace the shadow of her lover's face. Then as regards the bright colouring which pervades the archaic antefixæ, we are told by Pliny (xxxv. 154), that the two most famous plastæ in Italy, Damophilos and Gorgasos, were at the same time painters. It was they who decorated the temple

of Ceres, in Rome, inscribing their designs with Greek verses, which told that the designs on the right hand were by Damophilos, those on the left by Gorgasos. The same distribution of labour between two painters, Cimon and Dionysios, occurs in a Greek epigram,¹ from which it may be inferred that this arrangement, so natural in itself, had struck the ancients as peculiar. Again, it is said of one of the greatest of Greek painters, Zeuxis, that he also made figures or designs in terra-cotta.²

In Etruria, and among the early Romans, the application of terra-cotta to architecture, which in Greece had been partially driven out of the field by the introduction of marble, found a firmer foothold, possibly owing to the scarcity of marble. We have the direct statement of Pliny (xxxv. 157) to this effect ("elaboratam hanc artem Italiæ et maxime Etruriæ"). Of terra-cotta was the statue of Jupiter in his temple on the Capitol, which Tarquinius Priscus (or perhaps Superbus) had commissioned the artist Turrianus to make. On festivals the face of this statue was painted with minium. On the apex of the front pediment of the temple stood a terra-cotta quadriga, which Tarquin had removed forcibly from Veii, where it had been held sacred and inviolable from a circumstance attending the making of it, which Plutarch relates.³

¹ Anthol. Palat. ix. 758:

Κίμων ἔγραφε τὴν θύραν τὴν δεξιάν.

τὴν δ' ἐξιόντων δεξιάν Διονύσιος.

² Pliny, N. H., xxxv. 66: "Fecit et figlina opera quæ sola in Ambracia relicta sunt cum inde Musas Fulvius Nobilior Romam transferret."

³ Plutarch, 'Public.' 13. Pliny, N. H., xxxv. 157, speaks of more than one quadriga: "Fictiles in fastigio templi ejus quadrigas."

When put into the kiln to be baked, the quadriga, instead of shrinking in size, as usual, from the drying-up of the moisture in the clay, expanded so much that the roof and sides of the kiln had to be removed to get it out. As regards this technical effect, it may be remarked that the Assyrian tablets with cuneiform inscriptions frequently have a number of small holes punctured in the clay to allow the escape of moisture during the process of baking. In a work of art, however, especially a large group modelled in the round, the only safeguard against its being destroyed by the shrinking of the clay in the kiln lay in its being hollow and thin, so that whatever moisture was in the clay might readily escape. How difficult a task it was to obtain success under such circumstances may be seen in the large sarcophagus from Caere (Cervetri) in the British Museum.¹ In this case the clay seems to have been largely mixed with pounded brick, and to have acquired thereby great tenacity. But notwithstanding this precaution, and the fact that the two figures reclining on the lid of the sarcophagus are hollow even to the toes, it will be seen in several places, as in the right foot of the male figure, that the shrinkage has seriously damaged the artistic effect. In a large group, like this which might in the baking suffer entirely unforeseen changes, it was necessary to model in a bold and somewhat rough manner, so as to preserve the general effect, come what might. But this was a style of art that suited the Etruscan, if, indeed, it was not developed in him by his traditions of working in terra-cotta. The date of the sarcophagus in question can hardly be later than B.C. 550, and it

¹ Engraved in Dennis's 'Cities and Cemeteries of Etruria,' 2nd ed., i. p. 227; 'Encycl. Britann.,' 9th ed., s. v. Etruria, Pl. 8.

may thus perhaps fairly be taken as an illustration of the style of art presented by those statues in terra-cotta, which Pliny says (xxxv. 157) the early Romans were not ashamed to worship. Cato complained that these old-fashioned terra-cotta decorations of temples were despised in his time. We suppose that he refers to those executed in the archaic Etruscan manner which prevailed in Rome before the time of Damophilos and Gorgasos, who, with their Greek verses, as already mentioned, doubtless introduced also a new and fresh Greek style.¹ When Vitruvius² and Cicero³ speak of the terra-cotta sculptures in the pediments of temples, they state, or imply, that those figures were of the old Etruscan type. It has been supposed that the Etruscans had obtained this art, or at least, a strong impetus to the practice of it, from the artists (*fictores*) Eucheir, Eugrammos, and Diopos, who, to escape the tyranny of Kypselos, in Corinth, accompanied Demaratos, the father of Tarquin, to Etruria (Brunn, 'Griech. Künstler,' i. p. 529). It is known that Corinth was one of the earliest seats of the fictile art in Greece, and, considering the inexhaustible quantities of very fine clay lying close at hand, it is not strange that this art had flourished there. It was at Corinth that the idea of a pediment for a temple, doubtless filled with figures in terra-cotta, was invented (Pindar, 'Olymp.,' xiii. 21); and it was Butades of Corinth,

¹ Livy, xxxiv. 4, 4. Pliny, N. H., xxxv. 154, speaking of the temple of Ceres in Rome, which had been decorated by these two artists, says: "Ante hanc ædem Tuscanica omnia in ædibus fuisse auctor est Varro."

² iii. 3, 5, "Ornantque signis fictilibus aut æreis inauratis earum fastigia Tuscanico more."

³ 'De Divinat.,' i. 10, 16, "Cum Summanus in fastigio Jovis qui tum erat fictilis a cælo ictus esset."

who, as has already been said, was believed to have been the first to introduce into the architectural decoration of temples those antefixal ornaments. And these traditions and beliefs are on the whole confirmed by a comparison of the archaic terra-cottas of the architectural class, found at Olympia on the one hand, and in Etruria on the other. From that early impulse in Etruria, the art spread downwards into Italy, to meet a similar impulse spreading northward from Tarentum and Sicily, which impulse also had originated in Greece. So that when the later movement, under Damophilos and Gorgasos reached Rome, it was but a new phase of an art which had started from Greece, but which had become stereotyped under Etruscan practice. It would thus the more easily make its way in Italy. To illustrate the continued use of terra-cotta reliefs in architecture, down to the end of the Roman Republic, we may cite the cornices and friezes found at Pompeii (H. von Rohden, 'Die Terracotten von Pompeii,' 1880), or the statue, Fig. 110.



Fig. 110. Terra-cotta from Pompeii.

While surpassing the Greeks in the production of large groups in terra-cotta, the Etruscans failed in their statuettes. We may take as examples two, now in the British Museum, that were found in the Polledrara tomb near Vulci, with objects reaching back to

before B.C. 600. These terra-cottas (one of which is engraved in Micali, 'Monumenti Inediti,' Pl. 4, Fig. 5), though rude in design, are of a fine clay, and represent a combination of colour and gilding from which it could be supposed that in the phrase of Vitruvius—"signis fictilibus aut æreis inauratis"—this last word may have applied to the terra-cottas (*fictilibus*) as well as to the bronzes (*æreis*). Again, in two larger statuettes from Caere, also in the British Museum, may be seen the same archaic type of a female figure seated with hands on knees, and showing the same incapacity of detaching any limb from the mass of the figure. The clay is coarser, and the red colour applied to the drapery is bright.

Terra-cotta figures combined with vases are of pretty frequent occurrence in the black ware of Chiusi (Clusium), and, like this ware itself, they appear to be imitated from designs in bronze or other metal. It is reasonable to conclude so from the fact that the details on the surface of them are marked by hatched lines, as in metal-working. The modelling is always rude, and a considerable antiquity may be claimed for these terra-cottas; no less than for a small, but more freely-modelled vase, in the form of a lion, from Veii, and inscribed in Etruscan characters, *Felthur Hathisnas*, now in the British Museum (Fabretti, C.I.I. No. 2561).

It is a peculiarity of this Chiusi ware that the vases are frequently enriched with a long uniform border or frieze, generally consisting of a design—for example, a combat of warriors, or, group of animals—several times repeated. The breadth of the frieze, and the amount of relief in which the figures are represented, answer exactly to the average of Assyrian cylinders,

as indeed, also the general character of the designs. It is evident that these designs have been executed by rolling a cylinder on the moist clay of the vase; and it is reasonable to conclude that this practice was introduced into pottery from the common usage of the Assyrians and Babylonians in regard to seals in the form of cylinders. Such usage may be supposed to have been conveyed to the Etruscans, as also to the early Greeks, by Phœnician traders, whose imports are not unfrequently found in early Etruscan tombs.

Etruscan urns of terra-cotta are for the most part of a late date, and deal with popular Greek myths and legends, or parting scenes, according to designs evidently invented by Greek artists. The numerous portraits in this material are also, as a rule, late. But though very deficient in execution, they are mostly marked by great force in the conception, and the broad lines by which it is conveyed.

In Greece itself, there has been no notable find, except at Olympia, of archaic terra-cottas applied to architecture. Those of Olympia may be described as refined sisters of the terra-cotta antefixæ, with their female or Gorgons' heads, which have already been spoken of as coming from Capua and Etruria. The general aspect and style are the same. But there is a passage in Pausanias (i. 3. 1) which would prove that in Greece, the art had been more ambitious than its present scanty remains suggest. In speaking of the Stoa Basileios, which stood in the Ceramicos (the potters' quarter) in Athens, he says that on the roof were terra-cotta figures (*ἀγάλματα ὀπτῆς γῆς*) representing Theseus throwing Skiron into the sea, and Hemera carrying off Kephalos. The subjects here mentioned are of a class that points to an archaic age,

and in fact this porch is mentioned in Aristotle's 'Constitution of Athens' (c. vii.) as existing in the time of Draco. In the British Museum may be seen an archaic relief of Hemera carrying off Kephalos, which was found at Camiros, in Rhodes. In the Berlin Museum is a larger terra-cotta of the same subject, and equally archaic, that is to say, belonging to the 6th cent. B.C. ('Arch. Zeit.,' 1875, Pl. 15, Fig. 1). Again, the deeds of Theseus were favourite subjects in the archaic age, culminating on the painted vases in what is called the early red figure style, which belongs to the first half of the 5th cent. B.C. As Pausanias mentions only these two subjects on the Stoa Basileios, and as a porch would require a number of decorative designs, it is to be supposed that these two subjects were repeated from the same moulds at intervals along the roof of the porch. It is true that the words of Pausanias have been taken literally, in the belief, that there had been only two sculptures on the whole porch,¹ and that they had been placed on the tops of the supposed pediments. On that view the sculptures must have been much larger than we have any evidence of in Greece, while on the other hand, if the two subjects in question were repeated, as was usual on Greek public buildings, it was natural for Pausanias to mention them without any further explanation.

The relief just mentioned as coming from Camiros, is one of a series of archaic reliefs which have been found there, and at Athens,² Melos, and elsewhere. As a rule, they are delicate and refined in the model-

¹ E. Curtius, 'Arch. Zeit.,' 1875, p. 166, whom Miss Harrison follows in her 'Myths and Mon. of Ancient Athens,' p. 24, giving, however, a wrong illustration.

² Schoene, 'Griech. Reliefs,' Pls. 30-35.

ling. Indeed, if we take, as convenient for reference, two of those from Melos in the British Museum, which represent, the one Bellerophon slaying the Chimæra (Fig. 111), the other Perseus slaying the Gorgon (Fig. 112), it would be difficult to conceive how they could be surpassed in the perfection of refinement with which they are modelled. In others,

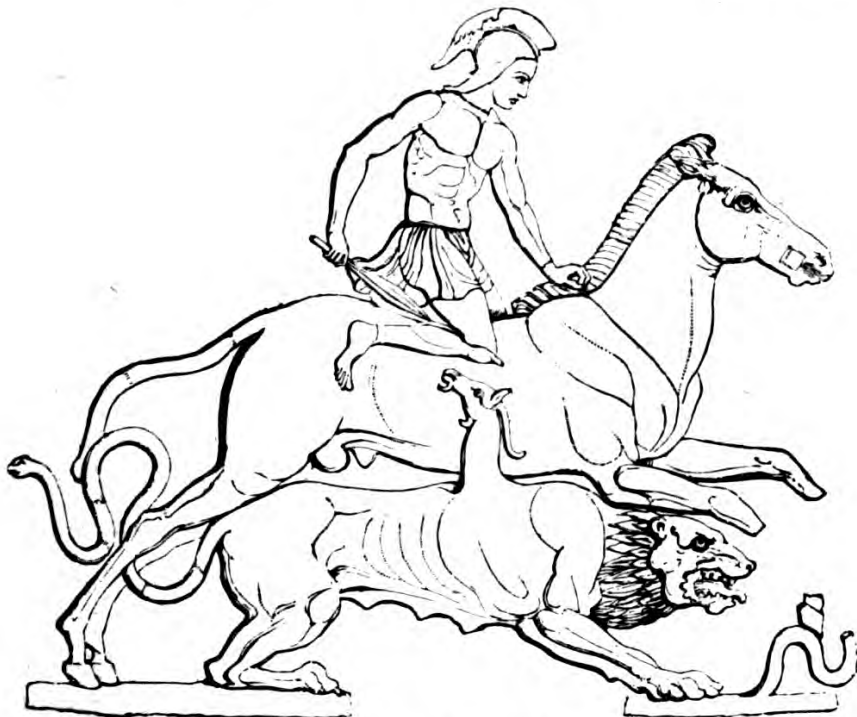


Fig. 111. Bellerophon slaying the Chimæra.
Ht. 6½ in.

where the original colouring has survived, it also is noticeable for its delicacy. But these reliefs are not strictly architectural. They are too small for a building. The lowness and delicacy of the relief would vanish in the open air. And yet they have been made for attachment to some surface, and for decorative effect on a space of small dimensions. Not only the fine artistic quality which they possess, but also the

variety of subject which they represent, tell at once that they were made to be admired and examined closely.¹ The student of archaic Greek reliefs in terra-cotta, cannot do better than see and think over them closely, keeping in view the task which the artist had to accomplish, viz., the reconciling of truth to human and animal forms, with the necessities of material and decorative effect, on a surface of small, almost minute dimensions. At every moment the actual forms of nature, whether in man, horse, or chimæra, have to be



Fig. 112. Perseus slaying the Gorgon.
Ht. 6½ in.

modified under the exigencies of a design in relief which must be kept low and flat, if it is to suit its decorative purpose.

From the tombs of Camiros several excellent examples of this class of terra-cotta reliefs have been obtained. But these tombs have also yielded a series of terra-cotta masks, the exact purpose of which is not obvious. These masks represent invariably the head or bust of a female figure, the type being always the same, a placid ideal face such as the Greeks of the 5th cent. B.C., or nearly so, conceived to be the best

¹ This series of reliefs is discussed in a very interesting and instructive manner by Brunn, in his Memoir 'über tektonischen Styl,' in the 'Berichte der Bayer. Akad.,' 1883, p. 300. The two from Melos here referred to as in the British Museum were engraved in Millingen, 'Anc. Uned. Mon.,' ii. Pls. 2-3.

expression of female beauty. Yet there is a sombre aspect in the faces. Moreover where the mask extends down to the bust (Fig. 105) we see at times that the hands are raised to the breasts, and this action was undoubtedly of sepulchral import. We may therefore assume that these masks were made specially for tombs. They are often pierced at the top with small holes intended for hanging them up on a wall—apparently the wall of the tomb. The uniformity in the type of face and the resemblance between it and the female faces on the terra-cotta cornices of archaic temples, would suggest that these masks had been placed on the inner walls of tombs to give the tomb something of the aspect of a temple, reminding us of the stelæ or tombstones of the Greeks, which constantly suggest by their form the appearance of a small temple.

But while this explanation of the origin of these masks is not in itself unreasonable, we have to bear in mind also that the early Greeks may have acquired from the Phœnicians the habit of regarding the human face and bust—apart from the rest of the body—as suitable for artistic purposes. The idea does not seem peculiarly Greek in its conception, notwithstanding the story of Butades and his daughter. What we may fairly state is this: in the archaic tombs of Camiros and elsewhere have been found a series of small vases—not unlike spindles in shape—which finish at the top in the bust of a female figure holding a dove to her breast. She wears a head-dress or veil which falls in the Egyptian manner with square ends over each shoulder, and a necklace with a pendant which resembles the necklaces on the native Phœnician terra-cottas found in Cyprus. The mouth

of the vase rises above her head. This figure has been identified as the Phœnician goddess Astartè, and of this at least there can be no doubt that the type of her face is peculiarly Oriental and sensual in its rounded, full, form. Possibly enough some of



Fig. 113. Vase in form of Astartè (?).

these vases now surviving from Greek tombs had been made by Greek potters in direct imitation of Phœnician originals, though the likelihood is all the other way, the more so since vases of this kind would have been frequently imported along with the perfumed liquids which they were made to contain and which the Phœnicians supplied. But there are other examples which exhibit what may be called the first step of the Greeks in Hellenizing this type (Fig. 113). The whole vase is made into a draped female figure, narrowing towards the feet and not displaying much shape or form, except in the head and bust. The type of face has been changed from the rounded sensuous type of Astartè nearly to the Greek form of a long face with massive brow and jaw, and with flat not rounded cheeks. Thus if we

are right in calling this a first step of the Greeks in Hellenizing a Phœnician idea, we learn from it two things: first that the Greeks were acquainted with the Phœnician employment of heads and busts, and secondly, that they did not altogether like it. They

did not of course always act as in this instance. On the contrary, these same archaic tombs have yielded a number of vases in the form of birds with female heads, which it is usual to call Sirens. Or again, we find small vases in the shape of a head of Heracles, covered, all but the face, with the lion's skin. Such heads of Heracles are not unfamiliar among the small porcelain vases which are attributed to the Phœnicians.

It is therefore possible that the archaic female masks found in Greek tombs had their origin in Phœnician art, and may have been directly suggested by the lids of Phœnician sarcophagi, which are fashioned into human faces at the upper end, under which lies the face of the person buried within.

From the vase in the form of a female figure just described the next step appears to have been to discard the idea of a vase, and to retain only the figure. The old fashion of holding one hand to the breast was retained, the other hand held the skirt aside in the manner so frequent in archaic sculpture. The figures are stately in aspect, young and tall. They have no special symbol that would identify them as goddesses. They suggest solemnity, and seem as if they might have been made expressly for a funeral ceremony. In contrast with them is a series of seated female figures, representing persons of greater age. The oldest examples sit solemnly, with a hand on each



Fig. 114. Hermes Criophoros. Gela. Brit. Mus. Ht. $7\frac{1}{2}$ in.

knee. At a later period some of them have symbols which appear to indicate a goddess. One in the British Museum holds a lion on her lap, and may therefore be Cybelè. Another also in the Museum carries a fawn at her breast, and holds out in her right hand a patera, as if in some way associated with a sacrifice; others carry a pig, doubtless again for sacrifice. As an example of a male figure belonging to this archaic age we may take Fig. 114, which it is not unreasonable to suppose is a rude copy from the famous statue of Hermes carrying a ram, made by Calamis for the town of Tanagra.

Terra-cottas in the shape of apes or negroes, though made by Greek potters and found in Greek tombs, must originally have been inspired in Egypt. To all appearance they had been first made by foreigners living in Egypt. The question is whether these foreigners were Phœnicians or Greeks, or partly the one and partly the other. The Greeks who traded and travelled in Egypt in the 7th cent. B.C., and possibly some time before then, were likely to have picked up new artistic ideas there. The figures of apes and negroes may very well be set down to them. On the other hand, vases in the shape of a grotesque Silenos, kneeling with his hands on his knees, in a true Egyptian manner, such as occur in the tombs of Camiros, seem to retain in their grossness a proof of their having been originally the production of Phœnicians living or travelling in Egypt. They have an artistic affinity to the grotesque Pataïkoi which Herodotus describes in Phœnician art. In this way Egypt had influenced Greece through two channels flowing contemporarily for the most part.

Nor is it impossible that, as M. Heuzey¹ has argued, the primary idea of placing terra-cotta statuettes in the tombs was derived by the Greeks from the Egyptian usage of depositing porcelain images beside their dead. The feeling of solemnity which pervades many of the archaic female figures would argue a continuance of some such spirit among the people. But clearly that could only have been partial at the most, because side by side with these serious and solemn statuettes we find numbers of purely grotesque figures fashioned and intended to create amusement as household ornaments.

Cyprus and Sardinia were seats of Phœnician industry. They have both yielded numbers of terra-cottas illustrating the tastes of that people. The most characteristic type is a nude female figure holding up her breasts with both hands, the type of face being of the sensual order already referred to. But Cyprus has furnished also many draped female figures. In them the oriental love of ornament, rich necklaces, elaborate crowns and brightly coloured dress is the most conspicuous feature. Even the terra-cottas of Greek production in Cyprus and of the best period, retain in many cases these large and highly ornate crowns.

The archaic period which we have thus endeavoured to sketch extended from about B.C. 650–500. Earlier than that there was doubtless an elementary stage of making figures or reliefs in terra-cotta. We have, for instance, the very primitive idols found at Mycenæ,

¹ In his 'Figurines Antiques du Louvre,' he hints at the possibility of the terra-cottas having been originally expiatory, replacing the human victims which of old had been sacrificed at funeral ceremonies.

Ialysos in Rhodes, and on other sites of early civilization in Greece. But apparently the formative spirit had not awakened to an extent that calls for notice now. It may be more profitable to return for a moment to where we set out—that is to the beautiful terra-cottas of the Tanagra period—for the sake of recalling what they possess in common with the archaic terra-cottas and what divergent from them. We do not include as divergencies those differences of artistic style which were inevitable in the development of art. We refer rather to the changes of subjects which the general taste and education of a new time were likely to bring about. In this respect there is much in common. There is, above all, the prevalence of female figures representing the ideal of youthful beauty and grace peculiar to each period. And next there is the excessive love of grotesque figures and children's toys. Among the divergencies is this, that the seated and more aged figures of the archaic type have gone out of fashion. We have, it is true, from Tanagra aged nurses seated with children on their knees; but they belong to the class of subjects taken from daily life which properly rank among the grotesque figures common to both periods. Then again there is among the Tanagra statuettes a very liberal introduction of boys and young girls, not treated as figures of daily life, but idealized. Nor must we forget the Cupids which, though not so frequent at Tanagra, are often found among the terra-cottas of Myrina and elsewhere. There is nothing like them in the archaic age. So also, if we compare the numerous grotesque figures, we shall find that the archaic specimens are abnormally repulsive in most cases, whereas those of the Tanagra epoch appear to

have been derived from a genial observation of the humorous sides of common life. When truly grotesque they are more often drawn from the comic stage than not.

If, then, the coroplastæ of Tanagra went to common life to furnish subjects of genial amusement for the people, it is more than likely that for their ideal female figures they took as a basis the types of youthful beauty, costume, and manners which were acknowledged in their time to be nearest to ideals. Similarly, if the archaic coroplastæ period sought for subjects to amuse the people by the creation of grotesque and fanciful figures outside of nature, and originating rather in a foreign art, it is likely that their ideal female figures were also more in the nature of variations on works of higher or older art than on actual observation of the types of female beauty acknowledged in their day. And in fact there is far more in common between the ideal terra-cottas of the archaic period and contemporary sculpture than there is between the Tanagra statuettes and the sculpture coeval with them. To put it otherwise, there is more of artistic choice among the archaic ideal figures, more of fashion and cultivated taste in those of Tanagra.

It remains now to consider briefly a class of terra-cottas which have been brought into notice of late years. They mostly consist of groups, larger in dimension than is usual among terra-cottas. There are many youthful female figures, singly or in groups, remarkable for their tall proportions, which are set off by a close clinging drapery full of narrow folds which run lengthwise of the figure. And besides, the tall proportions of these figures, with their high waists, are

often increased in effect by the attitudes of lying stretched on a rock or reclining on some elaborate chair or couch in a pose of exhaustion which appears to have followed upon some excess of sentiment or passion.¹ There are also large groups representing scenes from daily life; but in the examples of this sort which we have seen, there is none of the direct observation of common nature and the vigorous rendering of the same which characterise the terracottas of this kind in the Tanagra period. On the contrary, the figures carry with them into the most ordinary scenes much the same appearance and bearing which they exhibit in the idealized scenes. This implies a curious artistic defect.

In not a few of the groups it is noticeable that they have been made to present to the front the appearance of a relief. Take for example a known group,² representing Bacchus pulling back a bull which a small Cupid leads on in front. That is practically a relief, though it is finished at the back so as to stand by itself, like the other groups. But the point we wish to notice specially is the way in which the drapery floating behind Bacchus is made to form a piece of background. The same use of floating drapery to form a background is a characteristic of a number of these groups, and in all cases the treatment of the draperies is the same, implying a poverty of invention. In this group of Bacchus it will be remarked that as a bearded Bacchus he ought to have a long robe reaching to the feet. Instead of that he wears a short

¹ See the specimens published in the Catalogue of the Exhibition of the Burlington Fine Arts Club (1888), 184, 192, 173.

² Catalogue of the Burlington Fine Arts Club Exhibition (1888), No. 214.

chiton and high boots which would better become the youthful Bacchus. This mixture of the old and the young Bacchus gives the figure an absurd appearance. As regards the bull, the feebleness with which its legs and head are rendered is such as would not surprise us in Dresden china.

It is stated that these terra-cottas were found in the neighbourhood of Myrina in Asia Minor. But they have little in common with the many terra-cottas from Myrina now in the Louvre. The clay is like that of Tanagra, and probably not a few of these groups are modern forgeries made from clay of that district.

CHAPTER IX.

PAINTING.

Οὕτω μὲν δὴ πορευθέντες πρὸς τὴν Θεοδότην καὶ καταλάβοντες ζωγράφῳ τινὶ παρεστηκυῖαν, ἐθεάσαντο.—XENOPHON, *Memorabilia*, iii. 11, 2.

AN ancient writer, referring to the origin of painting in Greece, says that there was a time when this art had, so to speak been brought up on milk and in swaddling-clothes, when the figures were drawn so unlike nature that the painters wrote beside them ‘this is an ox, that is a horse, this is a tree;’¹ and in another passage² he repeats the phrase about the milk and swaddling-clothes in order to characterise the stage of painting that had preceded Cimon of Cleonæ, whom he regards as the first Greek painter of consequence. Other ancient writers appear to have thought that the first important step in the art had been made through the accidental observance of the shadow of a person cast on a stucco wall. Such, for instance, is the story told by Pliny of the daughter of Butades the potter in Corinth, who traced the shadow of her lover’s face on a wall.³ This again is amplified by another late

¹ Aelian, ‘Var. Hist.,’ x. 10.

² Aelian, *ibid.*, viii. 8.

³ Pliny, ‘Nat. Hist.,’ xxxv. 151.

writer¹ who speaks of the tracing of shadows, and cites the daughter of Butades under the general term of 'a Corinthian girl.' But he adds also several other names, Cleanthes of Corinth, Craton of Sikyon, and Saurias of Samos. These also practised skiagraphy, using no longer the wall of a room and a torch-light, as did the daughter of Butades, but panels covered with a white slip (*πίνακες λελευκωμένοι*), which they exposed to the sun. Craton of Sikyon went farther and employed colours to fill in the outlines of men and women cast by the sun on his prepared panels. That was a marked advance.

It will be seen that with the important exception of Saurias of Samos, the painters here mentioned belong to Corinth, or the region near it. To these we may add from Pliny's list of the oldest painters, Aridikos of Corinth, Telephanes of Sikyon, and Ecphantos of Corinth. These names occur in the very meagre account which Pliny gives (xxxv. 16) of the beginnings of the art of painting; and taking the passage altogether, we gather the impression that he had before his mind an idea that the art had actually begun in Corinth. He was aware of the early fame of Corinth in the working of terra-cotta. He knew that Corinth had been associated with painting in its earliest stages. He had the tradition before him that Corinthian artists had settled in Etruria along with Demaratos, the father of Tarquin, and had there introduced their skill in drawing and painting as well as in terra-cotta. He cites (xxxv. 17) pictures at Ardea, which still looked fresh, though for a long period the temples containing them had been roofless, from which we may

¹ Athenagoras, as quoted by Klein, 'Arch. Epigr. Mittheilungen aus Oesterreich,' 1887, p. 196.

reasonably infer that they had been painted on panels of terra-cotta and then fired. It is inconceivable that paintings on stucco could have stood such exposure without absolute, or next to absolute, destruction. At Lanuvium he found similar paintings, and at Caere yet older examples, which led him to remark on the singular rapidity with which the art had developed, seeing that it had not existed to all appearance in the time of the Trojan war!

We can form an idea of the paintings at Caere by a series of terra-cotta panels from that town now in the British Museum. These panels had formed a decoration on the interior walls of a tomb. The figures represented on them are engaged in actions appropriate to a tomb. They are painted in black and red on a white slip.¹ Or we may take another series of similar panels of terra-cotta in the Louvre, with figures also painted on a white slip.² The faces are drawn according to a uniform pattern, and yet with a native sense of beauty in the long sweeping lines of brow and nose and chin. The attitudes are uniform, one leg in advance of the other, and the feet close to the ground, on heel as well as toe. Yet in the figure altogether there is an artistic perception of a large style. The details of forms, as in the bones of the knees, the nostrils and ears, are given in a decorative manner based upon actual study. And so far we may be said to have in these paintings an illustration of that stage of the art in Italy which drew forth the praise of Pliny in recognition of the rapid progress it had made in those very early times.

But there are some points in these paintings which

¹ 'Journal of Hellenic Studies,' x. Pl. 7, and p. 243 fol.

² 'Mon. dell' Inst. Arch.,' vi., vii., Pl. 30.

we may leave for a moment till we have considered a question that arises out of the account of Pliny, of which we have been speaking. He says that the Emperor Caligula had tried to remove certain examples of the earliest painting at Lanuvium, but had failed because of the nature of the material (*tectorii natura*). Clearly this was no case of terra-cotta panels. Any decay which would interfere with the moving of terra-cotta would long before have annihilated the paintings. Besides the word *tectorii* implies a stucco wall. It is quite conceivable that paintings on stucco had retained much of their original beauty after the material behind them had become too perishable to be removed. We must therefore conclude that this branch of the art had been practised along with that of painting on terra-cotta in the early ages of which Pliny is speaking. Probably little of it had survived to his time, and this may have been the reason why he seems to have associated the beginnings of painting with terra-cotta panels principally.

But of late years the excavations at Tiryns and Mycenæ have brought to light several examples of painting on stucco which are certainly older than those mentioned by Pliny. Pliny does not claim to go farther back than the 7th cent. B.C., and from all that has been ascertained about the Corinthian painters whose names we have quoted above, the early part of the 7th cent. would suit them. The stucco paintings of Tiryns and Mycenæ are characterised by the same spirit and the same choice of subjects for representation which we observe on what is now a wide range of antiquities, including engraved gems, painted vases, inlaid bronze swords, designs in opaque glass, ivory, and gold. These antiquities we have

already discussed, and whatever their origin and date may ultimately be proved to be, they are beyond a doubt older than the 7th cent. B.C. It is possible that those of them that have been found in Greece proper had been imported. Nor is it impossible that these paintings on the walls of buildings at Tiryns and Mycenæ had been executed by foreigners. The tradition that the walls of Tiryns had been built by

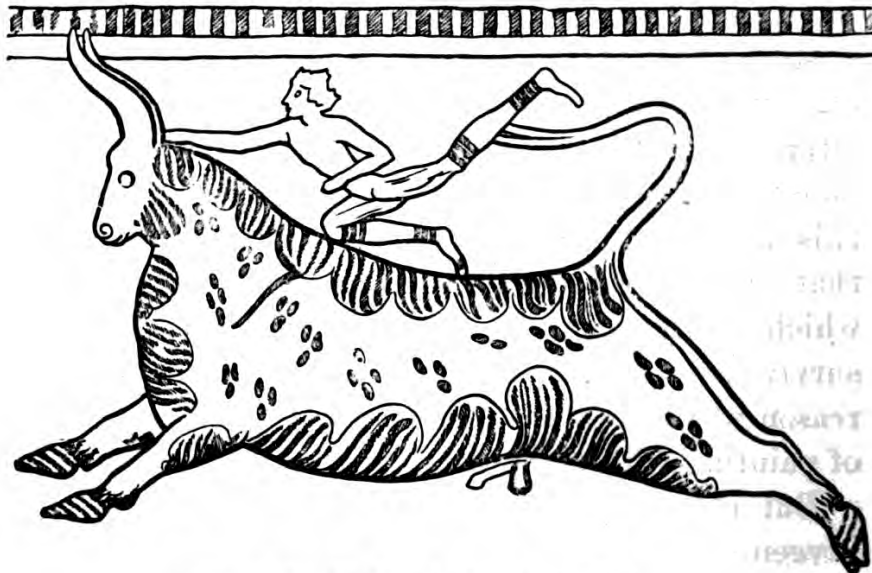


Fig. 115. Wall-painting from Tiryns.

Cyclopes from Lycia may have had some foundation in the actual importation of skilled labour in remote times, when Greece as yet was only emerging out of darkness. And this imported labour may have included painters.

At all events we have here the proof that painting on stucco walls had been practised in Greece at a very early age. The example from Tiryns represents a bull,¹ drawn very vigorously, but rudely (Fig. 115).

¹ Schliemann, 'Tiryns,' Pl. 13.

Above the bull—but doubtless intended to be at its farther side—is a man trying to seize the bull by the horns. On the fragments from Mycenæ, which are painted in bright reds, blues, and yellows, we have a singular group of asses,¹ which walk upright, carrying a pole over their shoulders and reminding us of Bottom when he was translated. On an engraved gem and a bronze vase from Cyprus of this same date, is to be seen a group of two lions standing upright like men, and each holding out in front of the other a wine-jug or oenochoè.² Such fantastic creatures could only, one would suppose, have been invented for the decoration of a dining-hall like that of Alcinöos, where golden youths held torches and where dogs of gold and silver served as ornaments (*Odyssey*, vii. 91). The question that interests us is, Where were they invented?

Among the Tiryns fragments is a fairly drawn head of a camel;³ and since the camel does not occur on any Egyptian monument previous to quite late times, and since in early Assyrian art the camel is common enough, we are obliged to think of Asia Minor as the source from which the knowledge of it and the artistic power of rendering it was brought to Mycenæ. Here again, if we have any faith in tradition, we recall the story with which Herodotus opens his history, telling how a ship of Phœnician traders having come to Argos—therefore to Mycenæ and Tiryns also—to sell their wares, carried off a princess, and thus began the enmity between east and west which resulted in the great

¹ 'Ephem. Arch.,' 1887, Pl. 10.

² The gem is published, 'Ephem. Arch.,' 1889, Pl. 10, No. 35. The bronze is given in Perrot and Chipiez, 'Hist. de l'Art Ant.,' iii., pp. 794-5.

³ 'Ephem. Arch.,' 1887, Pl. 11.

Persian wars. But the camel's head is not the only feature in these paintings which points to a connection with the east through the Phœnicians. The figures of asses and lions—acting as human beings—have numerous parallels in the art of Assyria. And besides, there is a finely painted head of a horse with his mane tied in upright knots, which, though not precisely like any horse's mane in Assyrian or Persian art, is yet clearly of kin to them. More strikingly suggestive of the east is a Mycenæ fragment of a warrior whose dress has a long sleeve fastened round the wrist, exactly such as was worn by the Persians and Phrygians, to judge by the representations of those races in Greek art. As a witness of the technical skill of the painter, it may be pointed out that he renders the high folds of the sleeve by a nearly white colour, the ground colour of the material being a dark red. He knew that where the light struck most must be as nearly white as possible and in this respect his practice is the same as that of the latest fresco painting in Pompeii.

Though these facts point to Assyria, with the region between it and the coast of Asia Minor, they would hardly by themselves be sufficient to exclude the not unnatural belief that a great ancient civilisation, such as that of Egypt, must have acted largely on the rising art of Greece. It did so in fact in many ways. But for several centuries previous to the 7th cent. B.C. Egypt had been, so to speak, any man's land; in particular it had been the victim of Assyria. Ionians and Carians went there for trade and war. The Phœnicians had settlements there, and of late years numbers of painted vases have been found in Egypt identical in every respect with those of

Mycenæ and their kindred. In fact Egypt was rather acted upon than acting. On the other hand the presence of scarabs with Egyptian hieroglyphs at Mycenæ and Ialysos, is evidence that she also had her share in this artistic movement. Indeed to make an inference from the actual remains of Egypt, with its long list of paintings on the stucco walls of tombs, it would be that Egypt had been the inspiring source of the art of Tiryns and Mycenæ, not Assyria, in spite of appearances in favour of the latter. The Egyptians claimed to have practised painting 6000 years before it reached Greece; and Pliny, though casting ridicule on this claim, mentions among the oldest painters, Philocles the Egyptian, evidently a Greek, who had settled in Egypt.

It should be remembered, however, that the Assyrians have left us a number of specimens of enamelled paintings, which, though technically in a different process, have yet artistically much in common with the Tiryns fragments. See, for example, the bull (Perrot, ii., p. 291).

The result may be summed up thus: the immediate sources of inspiration for the oldest painting in stucco in Greece had been the early Greek settlers on the coast of Asia Minor, they in their turn having acquired their skill and established their manner in the study of the older art of Egypt and Assyria. The change to painting on terra-cotta panels had been made, as we have suggested, about the beginning of the 7th cent. B.C. We may assume that this change also came originally from Asia Minor and took hold first in Corinth and its neighbourhood, passing thence to Etruria, and in this connection we may return to the terra-cotta panels from Caere, cited above, for the

sake of noticing that one of the figures carries over his shoulder a military standard surmounted by a bull. The bull is of a quite Assyrian type. The mere idea of a standard is peculiarly Assyrian in its origin. Herodotus tells us that every Babylonian had a standard surmounted by the figure of some animal or flower or other object. Thence the use of a standard seems to have passed to the Etruscans, and from the Etruscans it certainly was handed on to the Romans. Moreover the type of face on the Caere paintings is markedly Assyrian.

But the point which we have to keep chiefly in view here is the immediate contact of Greece and Etruria on the one hand with Asia Minor, on the other in the matter of painting. To this end we may call attention to a number of archaic sarcophagi of terra-cotta from Clazomenæ and elsewhere in Asia Minor, with designs of battles, bands of animals and such like painted on them. One of these sarcophagi, now in Berlin, has been published in colours, and deserves careful study;¹ or we may take as more convenient certain fragments in the British Museum from the same site and of the same date, comparing also a well-known terra-cotta sarcophagus in the British Museum from Camiros in Rhodes.² At the head of this latter is painted a fine group of a bull between two lions; the same subject recurs in the Berlin sarcophagus. And it will be noticed that the manner of painting the bull in both cases has much in common with the

¹ 'Antike Denkmäler,' 1889, Pl. 44.

² On the side margins of this sarcophagus are painted two helmeted heads resembling the two warriors in relief on a tomb in Phrygia, published by Prof. Ramsay, 'Hellenic Journal,' ix., p. 363; cf. Perrot and Chipiez, 'Hist. de l'Art Ant.,' iv. p. 173.

Tiryns bull. That is to say, in all three instances the back and belly of the bull are painted with large regular patches, always of the same shape and order. That these patches were meant to indicate a piebald colour seems the most probable explanation. Undoubtedly the drawing on the sarcophagi is a marked advance on that of the Tiryns bull; but the distance of time between them can hardly have been very great when so conventional a manner of rendering colours is the same in both.

A similar inference will follow if we compare what was a favourite ornament in the paintings of Tiryns¹—the heart-shaped border—with the form of ornament on the Berlin sarcophagus. Essentially it is the same, and yet an obvious advance of skill has been made by the painter of the sarcophagus. Such ornaments as the spiral, wave pattern, and guilloche are frequent at Tiryns, as on the sarcophagus and early vases from Camiros in Rhodes.

It may be remarked also that a feature in the painted pottery found at Tiryns is this, that the outlines of the figures are accompanied by a row of white dots,² which gives a curiously spotted appearance to the designs. On some of the sarcophagi from Clazomenæ this process is carried out, though there its effect has none of the rudeness which characterizes the Tiryns pottery. Nowhere, however, is this spotted process so fully developed as on a series of early Etruscan vases in the Louvre. On some of these vases, as also on an oenochoè from Vulci in the British Museum, the heart-shaped border of Tiryns has been modified

¹ Schliemann, 'Tiryns,' Pl. 10, Figs. *g-i*.

² *Ibid.*, Pls. 14–15.

considerably. These vases have on other grounds been traced to an origin in Asia Minor.¹

A reasonable date for the sarcophagi of Clazomenæ and Camiros would be the latter half of the 7th cent. B.C. In that case the fine skill with which they have been painted reveals an art which must have been practised in Asia Minor long before. At present we have no remains of this older art. We have, however, the statement of Pliny (xxxv. 55), that a picture representing a battle of Magnesians (with whom is not said) had been painted in Asia Minor by one Bularchos. It was painted on a *tabula*, and was valued at its weight in gold, from which we may conclude that it had been painted on some tolerably heavy and movable substance, such as a terra-cotta panel. This picture, says Pliny, was executed in the reign of the Lydian king Candaules, whom he places as a contemporary of Romulus. This Candaules, called also Myrsilos and Sadyattes, was the immediate predecessor of Gyges and is to be accepted as having reigned into the beginning of the 7th cent. B.C., so that we have here a record of a battle-scene painted as early as 700 B.C. In the light of the Berlin sarcophagus from Clazomenæ we can imagine the picture of Bularchos as standing about midway between it and the earlier paintings of Tiryns and Mycenæ. In composition it would approach the Berlin sarcophagus; in drawing and colouring the paintings of Tiryns and Mycenæ. Among those who had preceded Bularchos, the name of Saurias of Samos alone is recorded. Saurias was one of the first beginners in the art of painting, and for the

¹ Dümmler, 'Mittheilungen des Inst. Arch.' (Rom), ii., Pls. 8-9, p. 177.

present we can only conceive what his style may have been like by recalling the paintings of Tiryn and Mycenæ.

Side by side with these meagre facts bearing strictly on the art of painting we have the early Greek traditions of a connection between Phrygia and the Peloponnesus as represented in the legend of Pelops and the claim of the Persian kings that the Peloponnesus belonged to them as of hereditary right through the conquest of it by Pelops. We have besides an array of artistic considerations, based on the existing sculptures of Phrygia compared with such sculptures in the Peloponnesus as the Lion gateway at Mycenæ. From these considerations a degree of artistic intercourse between Phrygia and Greece has been made out, and though the precise date of this intercourse has not yet been fully established, somewhere about the 8th cent. B.C. is held to be near the mark.¹

In the records of painting in Asia Minor we pass from Bularchos with his battle-scene to a picture which was painted in the time of Darius; it represented his army crossing the Bosphorus on a bridge, he himself seated in state and looking on. This was between 516–514 B.C. The builder of the bridge was a certain Mandrocles, who to perpetuate the event caused a picture of it to be painted, which he placed in the

¹ See the very interesting articles of Prof. Ramsay in the 'Hellenic Journal,' 1888, p. 350, and 1889, p. 147, and compare Perrot and Chipiez, 'Hist. de l'Art Ant.,' vol. iv. The group of two lions which Prof. Ramsay engraves, p. 368 (vol. ix.), and the group which he restores (ibid. p. 361), compare strikingly in attitude and conception with the Mycenæ lions; but in manner and execution they appear to us to be of an older and ruder age than those of Mycenæ.

temple of Hera at Samos. Who the painter was is not stated. For a time it was thought to have been Mandrocles himself. But it appears that the phrase employed by Herodotus really means "to have a picture made;"¹ and we are thus free to think of it as the work of a painter pure and simple, not of a builder like Mandrocles with a turn for painting. Its being placed in the Heræum would itself argue a work of talent. In any case it was clearly a picture containing a large number of figures, and this fact is worth considering for a moment. An art which had grown up in Asia Minor, above all at Samos, must in its early stages have been in touch with the older arts of Assyria and Egypt. In these countries a multitude of figures was a common feature of art. Witness the long lines of low reliefs and of paintings. Something of that kind could hardly have failed to reach the incipient Greek painting in Samos and elsewhere in Asia Minor. We may assume that this was a feature in the battle-picture of Bularchos, though probably not to the same extent as in the 'Bridge of the Bosphorus.' And when after a little we find the Asiatic school of painting transferred to Athens and Greece proper under the influence of Polygnotos, there also the faculty of dealing with large compositions is conspicuously present.

The first name among the great painters is that of Polygnotos. From a past that is almost a blank as to records, he takes us at once into a new world of artistic creations. We know indeed a little of his father

¹ iv. 88: ζῶν γραψάμενος πᾶσαν τὴν ζεύξιν τοῦ βοσπόρου. See R. Foster, in 'Arch. Zeit.,' 1874, p. 99, who cites passages to prove this to be the meaning of the phrase. Cf. Klein, 'Arch. Epigr. Mittheilungen aus Oesterreich,' 1888 (xii.), p. 85.

Aglaophon, by whom he had been trained in the northern island of Thasos. We know also something of what had been achieved by the Greeks, before his time in sculpture, in vase painting, and in gem engraving. When Polygnotos appeared these arts were rivalling each other in the production of figures and scenes illustrative of legendary and mythical story. There was abundance of invention in attitudes and action. There was a passionate love of accuracy in details of costume and of form. Art was essentially illustrative of the legends and myths that had so strong a hold on the imaginations of the people. What it lacked was expression and dignity. It had the power of expression only so far as it is exhibited in action. The form of expression which reveals motives and character it had not. How far Polygnotos changed this aspect of affairs we can judge only by the records which exist of his works taken in conjunction with the surviving vase paintings of his day on which his influence may fairly be traced.

One of his greatest works, probably his greatest, was the series of paintings executed on the walls of a building at Delphi, known as the Leschè, which had been erected there at the cost of the distant town of Knidos in Asia Minor. The purpose of the building was to be a place where people could meet for idleness and gossip. Its construction has not been ascertained, but in one way or another, it was adapted for two great pictures, the one representing 'the captured town of Troy and embarkation of the Greeks' the other 'Odysseus visiting the Shades' of those who inhabited the lower world. In both pictures the subject is melancholy in the extreme. No less was to be expected from a visit to the Shades; but it is singular that in

dealing with the war of Troy the painter should have chosen the final stage of it, when the Greeks, having done their ruthless work, were in the act of striking their tents and leaving. It is a scene of desolation and gloom, without such relief as was to be found in the old familiar groups of combatants. Indeed the only person who is represented in the act of slaying another is Neoptolemos, and this leads Pausanias to point out that the Leschè stood beside an enclosure which contained the tomb of Neoptolemos, he, according to tradition, having been slain there by a native of Delphi. The site has been identified as close to the present fountain of St. Nicholas where future excavation may yet reveal the plan of the Leschè.¹

For the moment we can only venture the conjecture that a semicircular building would best suit the description of Pausanias (x. 25, 1). He turns to the right on entering, and proceeds to describe the 'embarcation of the Greeks,' and the 'captured town of Troy' after which he describes the opposite picture of 'Odysseus visiting the Shades.' But between the pictures he places the epigram of the poet Simonides recording that the pictures were the work of Polygnotos. Moreover in describing the "visit to the Shades" he appears to have gone again to the entrance, and to have worked his way through the groups back to the middle of the building. In accordance with this view we give in the annexed plan the subjects in the order of Pausanias as far as concerns the "visit to the Shades," but in an inverse order as far as concerns the opposite picture, where

¹ Ulrichs, 'Reisen' (1848), p. 39; cf. p. 111 for the traditions as to the death of Neoptolemos. See also Pomtow, 'Topographie von Delphi' (1889), p. 41.

Agamemnon sitting very downcast.

Agamemnon, and others.

Helena seated.

Electra } attendants of
Panthalis } Helena.

Briseis { Diomedes } looking at
Iphis } Helena.

Meges wounded in wrist.

Lycomedes wounded in wrist,
thigh and head.

Euryalos wounded on head and
wrist.

Tent being struck
by Amphialos, at
whose feet sits a
boy.

Ship of Menelaos, with
steersman Phrontes —
Ithaemenes carrying
dress; Echæax coming
down ship's ladder and
carrying bronze hydria.

Tent of Menelaus
being struck by
Polites, Strophios,
and Aephus.

he had worked forward from the right hand on entering. That the picture was novel in its conception is obvious from the way in which Pausanias in describing it has to wander from one poet to another, Homer, Lesches, Archilochus, and others, to find the literary sources which Polygnotos had made use of. The painter was no longer an illustrator of a particular legend. He set himself to create from various sources a new conception. If he thus employed the poetic materials before him just so far as they suited a conception of his own, we may be sure that he had dealt similarly with the artistic traditions that had come down to his day. He would use exactly such of them as suited his purpose. Even those which he did employ would undergo some transformation under the impulse of a new conception.

The fascination which these pictures of Polygnotos have exercised from the beginning of the present century to now may be seen in the extraordinary endeavours that have been made to construct pictorial representations of them, based on the description of Pausanias. These have been very conveniently collected and republished by Professor Benndorf,¹ who gives also a scheme of his own, for reproducing the picture of "captured Troy and the embarkation of the Greeks." In this scheme he has made a remarkable advance beyond his predecessors; he has gone direct to ancient vase paintings, and has collected from them the figures and groups which he required. Among his predecessors it was recognised, in particular by Mr. Watkiss Lloyd, that the vases were the best source of illustration, but no steps were taken to utilize them. The text of Pausanias was dis-

¹ 'Vorlegeblätter' for 1888, Pls. 10-12.

cussed and explained with a clearness that left nothing to be desired ; but so long as the drawings were of the bastard classic order familiar in the early part of the century, the great ability of the writers was thrown away on unappreciative readers. Professor Benndorf has put matters right so far that we now have the pictures reproduced strictly on the principles of vase compositions. The effect is admirable as compared with all previous restorations. At the same time there is obviously much lacking in the matter of style. The vases chosen are too often of a later and too energetic manner, at variance with the dignity and power of Polygnotos.¹ In searching for subjects on the vases which would illustrate the descriptions of Pausanias, the more important question of a grand style has been set aside.

We venture to think that a far more just appreciation of the work of Polygnotos would be obtained were we to abandon the idea of collecting vases with suitable subjects and set ourselves rather to selecting designs which would illustrate the style of the painter. In such a task the Athenian lekythi would come readily to our aid. On them the designs are painted on a white ground identical in appearance with the ground of the old fresco paintings. The colours employed are probably much the same as those used by Polygnotos. The subjects are of the same melancholy cast as on the paintings of the Leschè. The painters of these vases had much of the freedom and scope which the fresco painters enjoyed. They were untrammelled by much that

¹ Benndorf has collected an interesting series of vases illustrating the lower world in 'Vorlegeblätter' for 1886, called 'Unterwelts-Darstellungen.'

narrowed and confined them when working on vases of the ordinary red figure kind. On these latter the painter was as a rule confined by space. Tradition and habit told him that he must leave as little background as possible, or at all events that the space surrounding his figures was more or less an indifferent quantity. The composition must be complete in itself, regardless of background and space. But on the white Athenian lekythi it is not so. There is a sense of space and of open air. The composition suits the vase, but has not been drilled into shape for it. Take for instance the two beautiful lekythi in the British Museum representing each a female figure seated in deep despondency or distress beside a tombstone; and specimens even more beautiful than these could be named.¹ These lekythi are no doubt later in date than Polygnotos, but the striking contrast which they present to the red figure vases of their own time would itself be a proof that they are a class by themselves and probably represented a tradition derived from the older and higher art of mural painting in the days of Polygnotos.

As an example of vase painting on a white ground which may be positively assigned to the age of Polygnotos we may cite the Bale kylix in the British Museum representing Athenè and Hephæstos making Pandora, their names being inscribed beside each figure as were the names on the Leschè at Delphi. The draperies are put on with a brown colour on which the folds are afterwards slightly indicated.

¹ See Dumont et Chaplain, 'Céramiques,' Pls. 25-26, 27-28; Rayet et Collignon, 'Hist. de la Céramique,' p. 231; Robert, 'Thanatos,' Pl. 2, and Pottier, 'Étude sur les Lekythes blancs Attiques,' 1883.

But the faces, arms, and legs are rendered only in outline. The white colour of the background serves equally for the white of the flesh. In a lekythos of the Branteghem collection the flesh is put on with an enamel, having a different shade of white from the background. But it is hardly probable that this process, very beautiful in itself, had been employed on extensive mural paintings. The effect would have been too much that of a relief; whereas the whole aim of Polygnotos was to get away from the crowding of figures in a relief, into open space, where his powerful drawing and overmastering sense of the beauty resident in individual figures, their attitudes, emotions, subdued passions, affections, would have free scope. That this was his character is at once suggested by a glance at the list of his groups on the Leschè. It is confirmed by the criticism of Aristotle,¹ who calls Polygnotos a painter of character (ethos) as compared with Zeuxis, who had no ethos in his works. In another passage² Aristotle says that Polygnotos painted men above nature, Pauson beneath nature, Dionysios like nature. A lesser authority, Aelian,³ who yet may be repeating the opinion of better and older judges, speaks of the largeness of the work of Polygnotos, meaning largeness of style. He goes on to note his manner of representing actions and qualifies it by a phrase (*ἐν τοῖς τελείοις*) which has been the subject of much dispute. The words seem to us to bear the construction that in representing action he chose the completed stage of the action. Such at least was his rule in the paintings on the Leschè at Delphi. To judge from them he clearly avoided subjects in which feeling and

¹ 'Poetic.' 6.² 'Poetic.' 2.³ 'Var. Hist.,' iv. 3.

passion have passed over into action, according to the general law laid down by Mr. Herbert Spencer and accepted by Mr. Darwin, that "feeling passing a certain pitch habitually vents itself in bodily action."

The date of the paintings on the Leschè was early in the 5th cent. B.C. The poet Simonides, who wrote the epigram for them, died in 467 B.C. In any case it seems probable that Polygnotos had finished his work at Delphi before going to Athens. Some at least of the pictures there with which his name was associated, and for which he received the freedom of the city, appear to have been executed at a later date than this. He had been the friend of Cimon, who was then conspicuous in the Athenian state. He had introduced a portrait of Cimon's sister Elpinikè among the Trojan captives in his picture on the Stoa Poekilè in Athens. In Athens as in Delphi his work had been undertaken as a labour of love and not for gain. It remains now to notice very briefly the paintings in Athens, and in doing so we shall meet with two of his contemporaries, Micon and Panænos, the latter being a brother of Pheidias.

On the Stoa Poekilè, or painted porch, were four paintings, which Pausanias (i. 15, 2) gives as:—

1. (πρῶτα). Battle of Athenians and Lacedæmonians at Oenoè, or rather the beginning of the battle. The combatants were just getting to close quarters, and as yet there was no display of deeds.
2. (ἐν τῷ μέσῳ). Battle of Athenians and Amazons, the latter being on horseback partly; *by Micon*.¹

¹ See Overbeck, 'Schriftquellen,' Nos. 1080-1082.

3. (.). Troy captured and the Greek leaders assembled in connection with Ajax and Cassandra; *by Polygnotos*.¹
4. (τελευταίον). Battle of Marathon. In the middle the Persians were seen driving each other into the marsh in their flight. At the extremes were Phœnician ships, which Persians were seeking to reach, but were being slain by the Greeks. The Hero Marathon, Theseus, Athenè and Heracles were present as supernatural allies. Miltiades, Callimachos and the local Echetlos, (fighting no doubt with his ploughshare as on Etruscan urns) were conspicuous among leaders and combatants. This picture was *by Panænos*.²

It will be observed that the only picture here assigned to Polygnotos (No. 3) has much in common with the large group by him in the Leschè, and that here again we have an example of attitude and bearing as contrasted with action and energy. In the second picture, by Micon, there must have been abundance of action, while in the fourth, the battle of Marathon, by Panænos, the violence of the action is particularly described. We have thus a clear and distinct illustration of the contrast between Polygnotos and his two contemporaries such as it appeared to ancient critics. Panænos and Micon were native Athenians. Polygnotos had come from the northern island of Thasos, and had brought with him, apart from his genius, the traditions of the Asiatic school of painting. These were circumstances which would naturally have

¹ Overbeck, 'Schriftquellen,' Nos. 1055-1057.

² *Ibid.*, Nos. 1099-1108. See Klein, 'Arch. Epigr. Mittheilungen aus Oesterreich,' 1888, p. 96.

led to contrasts of style between him and his Athenian contemporaries.

But for the moment we have to point out that no name is given to the painter of the first picture, the battle at Oenoè. Were we to judge by the description of Pausanias, who takes pains to show that it was not an actual battle-picture, but only the beginning of a battle, the arrival at close quarters, we should recognise here also the ruling characteristic of Polygnotos, his avoidance of action. It has been thought, however, that this picture must have been added at some later period, and no record retained of the painter. No actual battle at Oenoè, such as would have furnished a worthy pendant to Marathon, was known in history. In later times there had apparently been some sort of engagement there, but not of an importance which would have led to the filling up of the vacant space in the Stoa Poekilè, assuming that such a space had been left. Lately another and far more rational view has been put forth.¹ By a skilful combination of records it has been shown that a battle of great importance which has escaped the ancient historians must have been fought in the district of Oenoè between the years 462–458 B.C. Possibly, therefore, this was the date at which the Stoa was painted, and possibly also the painter was Polygnotos, in which case his pictures at Delphi must have been executed previously. It does not follow that his pictures in the Theseum and the temple of the Dioscuri at Athens may not have been the work of an earlier stage of his residence in Greece.

On the walls of the temple of the Dioscuri in Athens were two paintings:—

¹ Robert, in the 'Hermes,' 1890, p. 412.

I. By Polygnotos, representing what Pausanias (i. 18, 1) calls the marriage of the Dioscuri with the daughters of Leukippos. It has been assumed that what Pausanias meant was rather the scene in which the Dioscuri appeared and carried off forcibly the daughters of Leukippos, much as they are represented on the famous Meidias vase in the British Museum. But that vase is admittedly much later than Polygnotos, and besides, the violent movement and action which characterise the vase are at variance with what is known of the style of Polygnotos. We ought therefore to adhere to the description of Pausanias, that the scene was a marriage, and presumedly more or less quiet and dignified.

II. By Micon ; a picture of the Argonauts. It also was strictly appropriate to a temple of the Dioscuri since they had been leading persons in the voyage of the Argo. But it is difficult to determine what precisely was the scene selected out of the numerous adventures of the Argonauts ; not improbably it was, as has been argued,¹ the funeral obsequies of Pelias.

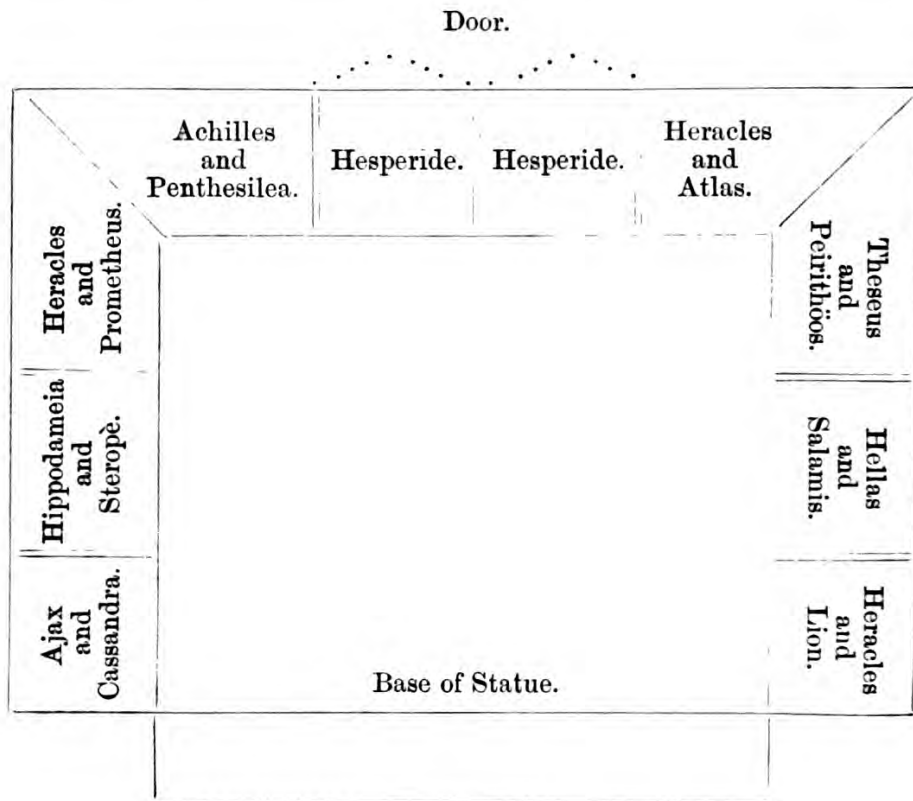
In the Theseum at Athens were three pictures. Pausanias (i. 17, 2), when he comes to the third in the series, introduces the painter Micon as if it were an understood matter that he had painted all the three. As against this testimony we have only a vague statement of the lexicographer Harpocration (s.v. Polygnotos) that Polygnotos had taken a share in the paintings of the Theseum. We may reasonably con-

¹ Klein, 'Arch. Epigr. Mittheilungen aus Oesterreich,' 1888, p. 98.

clude for Micon as the author of them all. They were as follows:—

- I. Battle of Athenians and Amazons, as to which it is singular that Pausanias compares it with the same subject on the shield of Athenè in the Parthenon and on the base of the Zeus at Olympia, but omits to mention that Micon had painted a battle of Athenians and Amazons on the Stoa Poekilè, which he (Pausanias) has already described.
- II. Battle of Lapiths and Centaurs, in which Theseus has already slain his Centaur. The other groups are still in combat.
- III. On the third wall the subject was difficult to recognise, partly because time had told on the picture and partly because Micon had chosen only one scene out of a long story. Minos had thrown his ring into the sea and challenged Theseus to fetch it. The painter chose the moment when Theseus rises triumphant from the sea, holding the ring of Minos and a gold crown which the sea-goddess Amphitritè had given him—a subject which is very finely drawn on a kylix by Euphronios, now in the Louvre.

Of the works of Panænos, in addition to that already mentioned, the battle of Marathon in the Stoa Poekilè, we have in Pausanias (v. 11, 2) the record of a series of groups which he painted on the barrier round the great statue of Zeus at Olympia. This barrier enclosed a square space in front of the statue. It had three sides available for pictures. I have elsewhere ('History of Greek Sculpture,' ii., p. 126) proposed the following arrangement of them:—



We have dealt at some length with these great painters—Polygnotos, Micon, and Panænos—because they represented at once the climax of that older stage of the art which we had been endeavouring to trace from its origin, and the preparation for a new departure. Such comparisons as we have pointed out in the manner of composition between Polygnotos on the one hand and Micon and Panænos on the other may serve to indicate that an older ideal of calmness and dignity was giving way rapidly to movement and action. With this new and growing conception new technical methods came into demand. The more they were supplied the more the old ideal of fresco painting disappeared. The new methods were such as to encourage the painting of pictures on isolated panels,

or, to use a modern phrase, easel pictures. It would seem as if the practice of mural painting had itself been abandoned, were we to judge by the literary records. On the other hand the villas of Pompeii, and some excellent frescos found of late years in Rome, afford, as we shall see, sufficient evidence that the art had never been actually abandoned, though it had ceased to attract the finest talent.

The first decided change after the time of Polygnotos was directed at obtaining scenic effect. The name associated with this change was that of Apollodoros of Athens, to whom was applied the epithet of skenographos, or what was considered its equivalent in those days, skiagraphos. That is to say, he was a painter of scenic effects which he obtained by means of light and shadow. He was the first, it is said, "to attain glory by a true use of the brush, and the first to give individuality to his figures."¹ Instead of the older method, in which figures had been largely painted only in outline, as we see them on the Athenian lekythi, he had filled in the whole of them with colour and had aimed at roundness of form and vitality of expression in the faces. For his scenic effects he may be supposed to have introduced a liberal amount of perspective. He is said to have thus opened the door of art into which Zeuxis afterwards entered. But it appears that this new and bold method of Apollodoros had met with hostile criticism. He is recorded to have inscribed on his works the phrase, "It is easier to find fault than to rival."²

¹ Pliny, N.H. xxxv., 60: Hic primus species exprimere instituit primusque gloriam penicillo jure contulit.

² Plutarch, 'De Glor. Athen.,' 2, *μωμήσεταιί τις μάλλον ἢ μιμήσεται.*

About this time or a little earlier we hear of Pauson, whose name has already been mentioned as that of a painter whose conceptions were beneath the dignity of nature. The notices of his picture of a horse rolling in the sand would imply that he had been given to efforts of bold foreshortening in his drawing. Agatharchos of Samos astonished people by the rapidity of his work. Aristophon, the brother of Polygnotos, has left no impression on the ancient records. But of his son Aglaophon we are informed that he painted two panels for Alcibiades, to illustrate the victories which his horses had just gained in the public games; and these are interesting from the combination of ideal and real figures which they contain. On the one panel were personifications of the Olympian and Pythian games crowning Alcibiades; on the other was a personification of the Nemean games seated with Alcibiades on her knees. We must add also the name of Dionysios of Colophon, who painted men as they were.

But the name that presently came to the front on the lines which Apollodoros had laid down was that of Zeuxis (about 430–390 B.C.). A native of Heracleia, probably the town of that name on the Pontus, and trained, it is said, in Thasos amid the traditions of the school of Polygnotos, Zeuxis appears to have gone first to Athens, where he may have met Apollodoros and seen his new style. He next established himself at Ephesus, which apparently had succeeded to the old renown of the neighbouring Samos as a centre of pictorial activity. We shall find others of the great painters of that and subsequent times taking up their quarters in Ephesus. It was from no patriotic motive. Nor was it to be near their clients. Their works were spread far and wide,

even they themselves went long distances to execute this or that picture. It would seem as if Ephesus and its neighbourhood had exercised some such attraction as did Italy once on a time on the painters of Europe. But while the desire to settle in Italy was easily explained by the presence of numerous examples of the great masters, in Ephesus there is no particular evidence of an attraction of that kind. We can only conceive that the brilliant atmosphere of the place, together perhaps with unusual facilities for studying from the living model, had drawn those artists away from busier haunts of men such as Athens.

But Zeuxis was often away from Ephesus. At one time he is at Croton in Southern Italy, commissioned at a heavy fee to execute paintings for a temple of Hera, and when the work apparently is done we find him proposing to paint of his own will a figure of Helena. As a preliminary step he asks to be shown the most beautiful young women in the town, and on being taken to the palæstra, is told that the most beautiful of the youths whom he sees there exercising have sisters still more dazzling in form and grace. Of the maidens thus indicated he was permitted to select five, and to have their presence by him while he worked out his conception of Helena, the unequal beauty of one model being complemented by the others. When the picture was finished the artist wrote beneath it, as a modern painter might write in the pages of an Exhibition Catalogue, those lines of the Iliad (iii. 156), in which the old men of Troy, beholding Helena on the tower, conveyed their admiration of her loveliness in the words, "For such a woman it is no hardship for

Trojans and Achæans to have borne long ills." The story is told at length by Cicero (*De Invent.* ii. 1, 1) and though it seems to be only one of the many tales that have surrounded the lives of great painters in most ages, yet it is quite possible that there had been in connection with the painting of this picture circumstances which easily allowed of their being rounded off into a tale.

It is conceivable that the original idea had been to surround Helena with her maids and Trojan captives, as in the two groups by Polygnotos, that Zeuxis had gone to the palæstra for models, and had finally decided on painting Helena alone. But in another respect also the conduct of Zeuxis on this occasion formed a precedent for modern times. He placed the picture on view and charged a fee for admission. Otherwise the painting brought him no gain: it had been undertaken as a gift to the people of Croton. It was probably about this time, while yet resident in the south of Italy, that he painted a picture of Alcmena and presented it to the town of Agrigentum; it has been thought probable that the picture here called 'Alcmena' was the same as that which Pliny proceeds to describe (*xxxv.* 63) more fully as the 'Infant Hercules strangling the serpents in the presence of his mother Alcmena and Amphytrion,' in which case there would be no question of the painter's skill in dealing with a single figure; it would be a question of a considerable group, because we now know from a vase in the British Museum,¹ that the sentence of Pliny, which has long been broken up and made to refer to two pictures, in fact describes but one. The vase exhibits a group of deities looking on

¹ Published by me in the 'Journal of Hellenic Studies,' xi. pl. 6.

while the infant Hercules strangles the serpents, his mother Alcmena trembling with fear, as Pliny says. The vase is a direct illustration of the entire sentence of Pliny, and shows that he was describing one picture, not two. The shape of the vase (a large crater) and the rough style of the drawing go to indicate that it had been made in Southern Italy and with a knowledge of the famous picture, or of some copy from it, if we suppose the picture to have been destroyed along with the town of Agrigentum shortly before B.C. 400. But the vase unfortunately conveys to us none of the qualities of a great artist such as we know Zeuxis to have been. The most it can prove is that Pliny may have been right when he blamed Zeuxis for making the heads of his figures too large (*grandior in capitibus articulisque*).

It is true that a picture consisting of so many figures seems foreign to what is otherwise known of Zeuxis; but an artist brought up as he was in the traditions of Polygnotos, would naturally enough have been qualified for such a task should occasion offer it.

An ancient writer whose judgments on matters of art are highly esteemed, Lucian ('Zeuxis,' 3), says that 'Zeuxis did not paint but rarely ordinary and common subjects such as heroes, gods and battles. He sought out some novel and striking conception upon which he bestowed the perfection of his skill. Among other bold conceptions he produced a picture of a "Female Centaur nursing two young Centaurs." Of this picture there is a copy in Athens carefully made, the original having perished in the sea off Cape Malea when Sulla sent it with others to Italy.' Lucian then

describes the picture in detail from the copy he saw in Athens. The Centauress was lying on grassy ground with one foot raised. She was holding up to her human breast one of the two young Centaurs, to suckle it. The other was busy sucking like a foal at a mare. The double nature of the Centaur, half human, half equine, which in the Greek legends passed as a merely fantastic creation, had suggested to Zeuxis that if he applied the ordinary laws of life to it, and imagined a Centauress suckling her young, the result would be very curious and striking to a spectator. The result certainly was so. In the upper part of the picture was the male Centaur, half hid behind rising ground. He was smiling on the group below and holding up a lion cub to frighten his progeny. Artists might judge of the accuracy of the drawing, the skilful use of colours and shadows, the proportions and the relations of the parts to the whole, but to Lucian it seemed that Zeuxis had earned the highest praise for the vividness with which the double nature of Centaurs was portrayed.

Passing over the less celebrated works of Zeuxis we may notice here an ancient criticism of his style which will serve also as a preparation for the next great name among Greek painters, that of Parrhasios. Quintilian ('Inst. Orat.' xii. 10, 4), comparing Zeuxis with Parrhasios, says that the former discovered (it should be 'perfected') the principles of light and shadow, while the latter developed greater subtilty of lines. Zeuxis depended more on largeness of limbs and forms, while Parrhasios defined everything so exactly that he was called the 'legislator, the fact being that the types of gods and heroes which he

produced have been accepted by others as if of necessity.'¹ Another writer (Pliny, 'Nat. Hist.,' xxxv. 67), tells us that Parrhasios had carried off the palm for the fineness of his outlines, but was less distinguished for his inner lines, and, as if to demonstrate by a practical instance the difference between Parrhasios and Zeuxis this writer (xxxv. 65) relates a contest between the two artists, in which Zeuxis painted a fruit-piece so truthfully to nature that birds flew towards it, while Parrhasios painted a curtain which even his competitor attempted to draw aside, and thus confessed himself surpassed. We need not examine too closely the outward form in which this tale has been handed down. Nor are we in a position to appreciate rightly those differences of style which the ancients readily perceived between Zeuxis and Parrhasios. The ancients knew also what these artists had in common; and that is just what we do not know in any direct and certain manner. We would rather know what they had in common than their differences. But so far as we can at present judge from the above criticisms, we should say that Zeuxis was more of a colourist, caring little for outlines, and that Parrhasios depended more on the purity of his drawing and composition.

Parrhasios, a younger contemporary of Zeuxis, is said to have been born at Ephesus, and is usually described as an Ephesian (about 415 B.C.). But it is probable that he had been of Athenian descent. His father Euenor, who was at the same time his instructor in the art of painting, bears a name which in older times had been borne by a sculptor in Athens, as inscriptions found on

¹ See Klein, 'Arch. Epigr. Mittheilungen aus Oesterreich, 1888, p. 121.

the Acropolis testify.¹ It is therefore possible that Euenor, the father of Parrhasios, had established himself as a painter in Ephesus, that his son was born there and retained a residence in that city. Whatever rivalry there may have been between Parrhasios and Zeuxis need not imply a rivalry of two opposed schools. It may only indicate the differences between two individual artists working in the same line. The luxurious habits of Parrhasios could have been acquired in Athens as well as in Ephesus.

In inventing new types of gods and heroes, such as other painters accepted, Parrhasios would find a natural scope for his bent towards drawing and composition. The verses which he is said to have attached to his picture of Heracles in Lindos, stating that the conception had come to him in a dream, can only mean that the type of Heracles here presented was a novel type. So also in regard to a picture of Hermes, it is charged against Parrhasios that he had taken himself as his model. It is said that for a model for his 'Prometheus' he had purchased an Olynthian captive and put him to torture; but that cannot be true exactly, because the dates do not suit. Nevertheless his 'Prometheus' must have been an extremely clever study of a man under physical torture or the story would not have got about.

The same love of rendering the expression of extreme bodily pain is seen in his 'Philoctetes;' while again in his 'Odysseus feigning to be insane,' yoking an ox with a horse in his plough in presence of the Greeks who came to carry him off, we

¹ 'C. I. A.,' iv., Nos. 373⁸⁶, 87, 88. Klein, 'Arch. Epigr. Mittheilungen aus Oesterreich,' 1888, p. 116, gives no credit to the statement that Parrhasios was an Athenian.

recognise a more subtle observation of the emotions and the strange possibilities of expression to which they may lead.¹ The man who could adequately paint Odysseus, that master of cunning, feigning to be insane, was likely to try his hand on even more complicated emotions. We are therefore not surprised to read that he chose as a subject the Athenian Demos with its catalogue of vices and virtues all mingled together. In what manner the 'many-headed monster' of Athens was represented is unknown, whether by means of a single personification or in a series of figures like the 'Calumny' of Apelles. In any case it was a study of many conflicting emotions. We have already said enough to indicate that Parrhasios was an artist whose bent was towards the painting of gods and heroes, who excelled in drawing and composition, while retaining in a secondary degree the sense of colour peculiar to his time, who loved to render the most intense and the most complicated emotions, and whose "works bridge over the space between the ethos of Polygnotos and the charis (grace) of Apelles in the history of the Ionian school of painting."²

We approach now Apelles (about 335 B.C.), still keeping before our minds the marvellous atmosphere of Ephesus with the facilities for painting that had grown up there. In modern language Ephesus was the Rome of ancient painters in those days. Apelles, son of Pytheas, had been born in Colophon, but had chosen Ephesus as his home. He had come of a painter

¹ This picture of Odysseus has been wrongly assigned to Euphranor (compare Overbeck, 'Schriftquellen,' Nos. 1708 and 1790), but Klein (Arch. Epigr. Mittheilungen aus Oesterreich,' 1888, p. 126) and others have rescued it as a picture by Parrhasios.

² Klein, 'Arch. Epigr. Mittheilungen aus Oesterreich,' 1888, p. 127.

family and had studied first in Ephesus, subsequently under Pamphilos, of whom mention has yet to be made. For the present it may be enough to say that this Pamphilos was a native of the northern town of Amphipolis, and that he had probably brought thence when he settled in Sikyon the traditions of the old school of northern Greece and Asia Minor, which Polygnotos had developed and rendered acceptable in the more active centres of Greece, such as Athens. But Pamphilos on settling in Sikyon appears to have taken up a new process of painting, an encaustic process to which we shall return. Meantime it would seem as if Apelles had left Ephesus to join Pamphilos in Sikyon, and to learn what might be useful in the new art. The result seems to have been that instead of committing himself to the new process of encaustic, Apelles went back to the old and traditional fresco painting, perceiving that in it also there were new methods to be discovered and worked out.

We possess an ancient description of his picture of 'Calumny' (Lucian, 'Calumn.,' 4). On the right sits a man with long ears like those of Midas, holding out his hand towards 'Calumny,' who approaches him. Beside him stand two women in whom 'Ignorance' and 'Suspicion' are personified. 'Calumny' herself is a woman of surpassing beauty, but here she is burning with anger and agitated like one who cannot control her rage and indignation. In her left hand is a flaming torch; with her right she drags by the hair a boy who stretches his hands to heaven and calls the gods to witness. Then comes a man, pale and thin, with the cadaverous look of one wasted by long disease. That is 'Envy,' and next appear two more women caressing, decking and adorning 'Calumny.' They

are called 'Cunning' and 'Deceit.' Behind them follows, poorly clad in black and tattered, 'Penitence' by name; she weeps and looks back ashamed towards 'Truth,' who follows her.

Except for this figure of 'Penitence' and the boy imploring heaven, both of which are emotional enough, the picture of Apelles would remind us of the Pilgrim's Progress, or more appropriately to the present occasion, a little-known book, the 'Characters' of Theophrastos. Theophrastos, a pupil of Aristotle, as he was, would be more or less a contemporary of Apelles, and between them they would represent the general taste of the times for the observation of character. His genius in the rendering of character and expression naturally led Apelles on to portraiture. That, indeed, was a tendency of the time. Had it been otherwise, there would have been no need of an edict of Alexander the Great, to the effect that none but Apelles was to be allowed to paint that monarch's portrait.

We hear of several portraits of Alexander and the generals who surrounded him by Apelles. But in most cases it was a portrait with striking accessories—Alexander holding a thunderbolt, therefore in the character of Zeus—Alexander with the Dioscuri and Victory—Alexander leading in triumph the god of war—Alexander on horseback—Neoptolemos on horseback charging the Persians—Antigonos armed and standing beside his horse—and another picture of Antigonos seated on horseback, which was the more admired of the two. His own portrait may have been an exception. But his rule was clearly to combine with his portraits such accessories as the traditions of art furnished him with.

The time had not come when a mere bust or face would be appreciated. What was wanted alike by his own training and the taste of the day was a subject in which some particular individual was made to figure. Among other accessories the horse came ready to his hand. Its forms and movements had long fascinated artists of every description; witness the Parthenon frieze. So that by the time of Apelles there was probably no action of the horse that had not been rendered familiar and acceptable as a thing of ideal beauty. The horse of Alexander or of Antigonos, if rendered in that traditional manner, would at once place the picture on ideal ground. And we may be sure that Apelles so rendered it, whatever may be said of the anecdote that the horse of Alexander had recognised itself in a picture more readily than did its master.

But the best proof that his horses were painted on the older ideal lines is to be found in an ancient description which has survived¹ of a picture of his representing a war-horse with its rider, probably one of those portrait groups already mentioned. With its head thrown up and its forelegs pawing the air, the rider keeping him under control, the description of this horse answers perfectly to the ideals which we still possess in Greek sculpture. We may add that it was in connection with this picture that the story was told of how Apelles, failing to render the foam at the horse's mouth, threw at it in despair the sponge with which he had been wiping out his unsatisfactory efforts, when, behold, the sponge just hit the right place and left exactly the appearance of foam which the painter had been seeking. Whereupon he finished

¹ Dio Chrysostom, 'Orat.,' 63, 4.

the picture not by the methods of art, but in the manner of chance, as if he had been reminded of the line of the poet Agathon, quoted by Aristotle ('*Nic. Eth.*,' vi. 4), to the effect that 'art loved chance and chance loved art.'¹

Another instance of how Apelles employed wisely the traditions in which he had been trained is to be gathered from the most famous of his pictures, the *Aphroditè Anadyomenè* (rising from the sea) at Cos. That subject was as old at least as the time of Pheidias, who sculptured it on the base of his statue of Zeus at Olympia. But that was in the midst of an extensive group. Apelles chose only the central figure of *Aphroditè* and apparently gave it quite a new rendering. All the same, he had there a certain standard before him, and that counted for much. He might depart from it in every particular and yet it would always save him from error. At all events the picture was widely celebrated in antiquity in verse and prose. The goddess was represented in the act of pressing the water from her wet hair, possibly in the attitude familiar in a number of ancient bronze statuettes. The charm of the figure, however, was not in the attitude, but in the beauty of form and colouring, and it would be hopeless to try to realize these qualities from anything that has survived from antiquity. It is said that Apelles later in life had set himself to produce a still finer *Aphroditè* of the same type, but that he had died leaving the lower part of the picture unfinished. But the statements to this effect are at variance with others which report a decay of the lower part of the original picture, which no one could be found able to restore. There must be a mistake somewhere.

¹ τέχνη τύχην ἔσπερξε καὶ τύχη τέχνην.

Possibly there is truth in the report that the original picture had suffered after its removal to Rome, in which case the painting of a second picture by Apelles may have been invented by some one unconscious of the anachronism.

The praises of the Aphroditè Anadyomenè point less to a great conception, than to excellence of drawing and colouring. We read that Apelles made a special study of drawing, allowing no day to pass without practice in it. Experience teaches us how captivating refined drawing may be when joined to a delicate sense of flesh-colouring. Apparently these were the limits of Apelles, and possibly the ancient praises that were sung of him owed much of their origin to a general appreciation of those qualities as opposed to paintings which involved a wider range of conception.

As between Zeuxis and Parrhasios, so between Apelles and Protogenes (about 325 B.C.) we have again a personal acquaintance and a personal contest in art. In this instance the contest is reported to have been merely as to who could draw the finest lines. But probably the story is nothing more than a confirmation of the assiduity of Apelles in the practice of drawing, with the addition that Protogenes even excelled him in that branch of art. Protogenes was a native of Asia Minor, having been born at Caunos in Caria, a small place near and subject to the island of Rhodes. His home was in the town of Rhodes, not, however, to the exclusion of his executing works elsewhere. In Athens, apparently late in life, he painted a picture of the two state ships Paralos and Ammonias, introducing as accessories on a small scale figures of war-ships. It is commonly supposed that the two state ships were represented by personifications, to

which the smaller accessory ships served as exponents. Had the *Paralos* and *Ammonias* been painted as actual ships the smaller vessels would no longer have been *parerga*, as they were called, but would have been an essential part of the subject.

Be this as it may, his introduction of these smaller ships into the picture was the occasion of a report that Protogenes had spent a great part of his life in actually painting ships—not pictures of ships, but ships themselves. The report may have been absolutely groundless; nor does it concern us here that his early life was spent in poverty, if such was the case. But it is possible that Pliny ('Nat. Hist.,' xxxv. 101), in relating this account of the life of Protogenes may have got confused among his authorities. Later on (xxxv. 149), in speaking of the methods of encaustic painting, he cites a method employed in painting ships in which a brush was used to lay on the colours, these having been resolved in wax by means of heat. It is conceivable that Protogenes had learned this method of encaustic painting by the aid of a brush while actually employed on the painting of ships, and had afterwards set himself to adapt this method to the highest forms of art. On that view we could understand his early life being referred to in connection with the picture at Athens. The necessary consequence, however, of this view would be that Protogenes must be ranked, not among the fresco, but among the encaustic painters, to whom as a class we must presently proceed. Indeed, of no other process but that of encaustic, it seems to us, could it be said, as Pliny (xxxv. 102) says, of the most famous picture by Protogenes—the *Ialysos*—that the painter had laid on his colour in four thicknesses, so that if

the uppermost colour decayed, the next lower would take its place. Whether the result would have proved so in fact we are not able to say; but it is certain that in encaustic painting it was necessary to add layer above layer of colour.¹ The extreme laboriousness of Protogenes would be accounted for by assuming an encaustic process. He spent seven years on his figure of Ialysos. Universal praise attended the immense labour he had bestowed on this one figure with no accessory apparently but a dog. The effect of his painstaking seems also to have been a vivid realization of the subject. He painted a picture of a Satyr leaning on a pillar on which was a partridge so true to nature as to charm the rearers of partridges. Even these birds themselves fluttered towards the picture! No less was to be expected of an encaustic painting, laboriously minute and probably on a small scale. It remains only to add that Apelles, as we have seen, had studied for a time under Pamphilos at Sikyon, one of the leaders of the encaustic school. The probability is that Protogenes had gone through some similar course and had adhered to its methods.

We are thus led to the encaustic school of painting in Greece, with its headquarters in Sikyon, and turning to Pliny we find that he devotes a section of his book ('Natural History,' xxxv. 122-149) to this subject. But he begins in a confused way by mixing up painters and sculptors. Moreover he hardly pretends to trace the art from its origin. He allows that this branch of painting had been practised more or less for a long time. Nevertheless he is content to

* See Otto Donner, 'Ant. Wandmalerei,' p. 11 (from Helbig's 'Wandgemälde Campaniens').

begin with Pamphilos, under whom Apelles had studied at Sikyon. We must endeavour to go back one or two generations before then. Pliny himself gives the clue. He had previously (xxxv. 75) told us that Pamphilos had been instructed in the art by Eupompos. That takes us one generation back. In the same sentence he mentions, apparently as a contemporary, Aristeides, meaning no doubt the same Aristeides whom he afterwards cites as the inventor of encaustic painting. We are told that Aristeides had learned his art from Euxenidas. That would be the second generation back from Pamphilos. This Euxenidas was, he says, a contemporary of the great painter Timanthes, who, like the others just mentioned, appears to have been established in Sikyon. Pliny has immediately before described a small but very minute picture by Timanthes which could hardly have been executed but in encaustic. It represented a Cyclops with diminutive Satyrs measuring the length of his finger by means of a thyrsus.

At all events Pliny soon goes on to describe one of the processes of encaustic—that of painting on boxwood (or ivory), which became so fashionable in Greece as to form part of a liberal education among the sons of wealthy persons. Timanthes ought therefore to be included among the encaustic painters,¹ not by any means as one who had practised the art regularly, but as occasionally having recourse to that process. In this respect he may be classed with Protogenes and doubtless with others

¹ Klein, 'Arch. Epigr. Mittheilungen aus Oesterreich,' 1887, p. 212. To avoid repetition we may here acknowledge our indebtedness to this article of Prof. Klein's for a number of interesting suggestions and newly-ascertained facts.

of those who are specially mentioned as encaustic painters.

Meantime it is only fair to stop here to notice the picture for which Timanthes was greatly famed in antiquity. His 'Sacrifice of Iphigeneia' which ancient writers admired for the expression of sorrow on the faces of the persons present—Calchas, Odysseus, Menelaos, and in particular for the climax of sorrow which they recognised in Agamemnon, the father of the victim, with his face concealed from view. Among the paintings of Pompeii that subject has survived in a picture, which is believed to have been copied from the original of Timanthes. The Pompeian fresco is probably far behind the original, and yet it obviously retains much of the qualities of a great conception.¹ The only element in it that we would venture to question is the group in which Iphigeneia is being carried to the altar, while the deer which is to be her substitute is seen above in the sky. We question this because on a fine vase in the British Museum the subject is conceived more poetically. We there see Iphigeneia standing ready for the sacrifice, but at her farther side is a deer standing on its hind-legs, so as to be almost concealed from our view by the figure of Iphigeneia. She in fact is represented as coalescing with the deer, her form about to vanish into its form. We are tempted to think that a great painter would have preferred this conception.

We may pass over the controversy as to Aristeides the reported inventor of encaustic painting—whether

¹ For engraving see Müller's 'Denkmäler,' Pl. 44, No. 206; from the 'Casa del Poeta.' Compare Helbig, 'Wandgemälde Campaniens,' No. 1304.

there had been but one painter of that name or two, the one being grandson of the other, and the intermediary being Nicomachos, also an encaustic painter, who would thus have been son to the first Aristeides and father to the second.¹ Nor indeed is there much to be made out of the records of the works ascribed to Aristeides—whether one or two of the name. The only important remark in the records is to the effect that Aristeides was celebrated for the expression of character (*ethos*) in his figures. An observation which so directly recalls the style of Polygnotos would suggest that the Aristeides of whom it is used had lived at a time when the traditions of Polygnotos had not yet been wholly abandoned. He may have been a contemporary of Zeuxis and Parrhasios.

The conspicuous painters of the encaustic school in Sikyon were Eupompos, Pamphilos with his pupil Pausias, and he again with his pupils Aristolaos and Nicophanes, Euphranor with his pupil Antidotos, Nikias pupil of Antidotos, Athenion, Heracleides, Timomachos and Socrates. This class of painting was called *Chrestographia*, and if the exact significance of the word had not been lost, we should perhaps have had a useful clue. As it is, we can only suppose that this word had been employed as a general term to express what we are otherwise told of one branch of the art, that of painting on boxwood, that it had become under the influence of Pamphilos a fashionable occupation. That is to say, *Chrestographia* was equivalent to a fashionable art, having its special masters who excelled in it, the enormous fees which

¹ Klein, 'Arch. Epigr. Mittheilungen aus Oesterreich,' 1887, p. 227.

Pamphilos exacted from his pupils confirming this view. But at the best this only explains one feature of the art. It conveys no impression of the style of the painters whose names we have just mentioned. On the contrary, the idea we form of the fashionable painting on boxwood is an idea of bright colours such as we find on miniatures; whereas the records of those painters speak repeatedly of their austere and sombre colours, so much so that we must accept that as their prevalent character. Besides we are repeatedly told of this or that leader in the encaustic school, that he painted also large pictures, the intention of the writer being to contrast those large pictures with the smaller works on ivory and such-like from the same hand.

Of these leaders the chief were Pamphilos, Pausias, and Euphranor. In regard to Pausias, a technical peculiarity is mentioned in connection with a large picture of his representing the sacrifice of an ox. He painted the ox wholly of a black colour and managed his shadows in such a way that the projecting parts of the ox appeared in even colour (in æquo), while the retreating parts appeared in broken colour (in confracto), whereas other painters would have brought out the projecting parts with high lights and left the retreating parts black. That is to say, Pausias was the first to employ one colour in various shades, so as yet to secure full roundness in the form of his ox. By a similar method he painted a figure of Methè, a woman drinking from a glass bowl, the effect being that the woman's face was seen through the glass bowl. He is said to have been employed to repaint certain wall-paintings by Polygnotos at Thespiæ, but from inexperience in fresco had not succeeded in

proportion to his fame. He was the first to utilize the encaustic process for the interiors of rooms and for such parts of buildings (*lacunaria*) as were naturally in deep shadow. In these cases he must have employed bright colours.

After Pausias the fame of the Sikyonian school was upheld by Euphranor above all others. His skill was by no means confined to painting. He excelled in modelling in terra-cotta, and in the sculpture of marble. We may conclude that in painting also he practised more methods than one. His connection with the encaustic process seems clear; but equally his paintings on the Stoa Basileios at Athens may have been executed in fresco. These paintings represented (1) A group of the twelve gods; (2) Theseus attended by Democracy and Demos; (3) The battle of cavalry at Mantinea, in which were conspicuous Gryllos, the son of Xenophon, on the side of the Athenians, and Epaminondas on the side of the Bœotians. The description of this battle picture recalls the old frescoes of Polygnotos, Micon, and Panænos in Athens. It would seem as if the bent of Euphranor's genius had been in the direction of these old masters, though his methods would have much that was new. So, again, in his picture of Theseus, he himself is said to have made a comparison between it and a painting by Parrhasios, the difference pointed out being one of colour. What the pictures possessed in common we are left to imagine from the fact that both painters had chosen to represent a personification of the Demos. In that Parrhasios had furnished a model for Euphranor. The group of the twelve gods had been long familiar in sculpture in relief, and there also it is possible that the characteristic of Euphranor

had been one of technical method to a considerable extent. At all events we can best understand his being called to Athens for this public work by assuming that his natural inclination had been to work on the old lines so far as general conception was concerned.

It remains now to describe the process of encaustic painting, to which we have been referring as the principal feature of the school of Sikyon. After that we shall proceed to the ancient fresco-painting of Italy; in particular to the remains of it in Pompeii and Rome.

The ancient authority on encaustic painting consists of the following passages in Pliny (xxxv. 122, 148, 149).

1. *Ceris pingere ac picturam inurere quis primus excogitaverit non constat.*

2. *Laiæ Cyzicena . . . Romæ et penicillo pinxit et cestro in ebore imagines mulierum maxime et Neapoli anum in grandi tabula.*

3. *Encausto pingendi duo fuisse antiquitus genera constat: cera et in ebore cestro id est viriculo, donec classes pingi cœpere. Hoc tertium accessit, resolutis igni ceris penicillo utendi quæ pictura in navibus nec sole nec sale ventisque corrumpitur.*

The first of these passages speaks of the beginning of the art of "painting with wax" (as a vehicle) "and then burning in the picture." The second mentions a lady artist in Rome who "painted figures of women" in two ways, "with the brush and with the cestrum on ivory" (compare Fig. 116). The third passage sums up by saying "that there had been in antiquity two processes of encaustic painting, the one with wax" as a vehicle, "the other with the cestrum on ivory, until

ships came to be painted, when a third process was added, that of using a brush with colours melted in wax over fire." The difficulty of interpretation turns on the phrase "painting with the cestrum on ivory." Pliny explains the word cestrum, by another word, viriculum, which means a sharp, pointed instrument, just such an instrument as would be very useful in drawing in outlines on ivory. If we suppose him to mean



Fig. 116. Pompeian fresco. Lady copying a statue.

that this sharp, pointed instrument was employed in painting on ivory as an accessory to the brush—as a means of putting in the outlines of a figure or group previous to the laying on of the colour, the question which has produced so much controversy would be plainly answered. In the British Museum is a thin, small panel of ivory, on which is drawn very finely a figure of a Nymph crouching before a fountain, while

a Satyr looks over a rock at her, and pulls a piece of her drapery (Fig. 117). The drawing has been incised with a fine tool such as an engraver would now use. While most of the surface has become green with age, the pool of water, the lion's head, and parts of the drapery retain the original white colour of the ivory, showing that they had been protected by

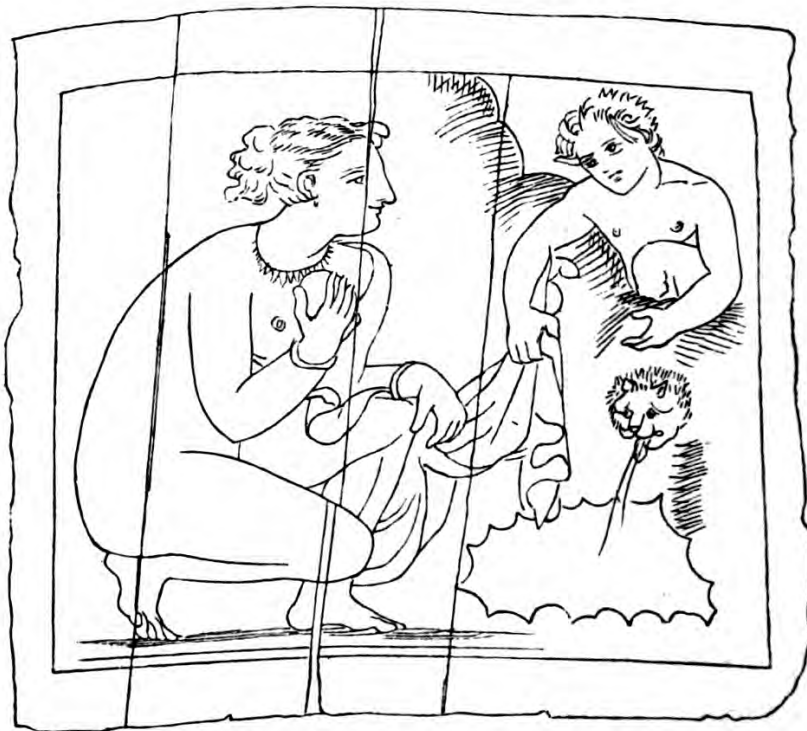


Fig. 117. Incised design on ivory. Brit. Mus.

colouring substance. Apparently the rest of the design had not been coloured, as it may conceivably have been in other designs on ivory. The date of this ivory would correspond with the most flourishing period of the encaustic school. On one at least of the archaic statues found of late years on the Acropolis of Athens, the pattern forming a race of chariots has incised outlines within which the colours now faded

had been kept; but whether the process in this instance was the same as what in later times was called encaustic on marble, remains to be proved.

It will be observed that in the principal passage quoted above (3) Pliny speaks of the use of a brush only in connection with the painting of ships, where, obviously, a large brush was required. But it does not follow that he excluded the use of the brush in the other methods which he mentions. In connection with fresco-painting, where large surfaces had to be covered, he repeatedly speaks of the "glory of the brush," and it is probable that in his mind the brush was generally supposed to be large and used for large surfaces. That, however, does not imply that it was not employed also for small pictures on ivory or wood panels. A highly-cultivated German painter (Mr. Donner) who has investigated the subject with the aid of practical experiments, has arrived at an opposite conclusion. But before considering his arguments we may take note of the series of paintings on panels which have been discovered in Egypt in the Fayum, confining ourselves to those that were found by Mr. Flinders Petrie, with his remarks on the technical methods employed on them.

Mr. Flinders Petrie ('Hawara,' &c., p. 18) says, "So far as I have examined the portraits and discussed the methods with various artists whose practical experience is of great value, I see no reason to suppose that any process was needful beyond the following: The colours in powder were ground in thoroughly with the wax (which may have been bleached by heating it to boiling-point, as I have found), and they were then placed out in the sunshine when required, so as to fuse them, or a hot-water bath may

have been used in cooler weather. The wooden panel was of cedar usually, sometimes of pine-wood, and about $\frac{1}{16}$ inch thick, or occasionally as much as $\frac{1}{4}$ inch; it was about 9+17 inches in size. On this was laid a priming of distemper; then a grounding varied in tint, lead colour for the background, and draperies and flesh colour for the face; and then the surface colour was worked on, sometimes in a pasty state, more usually creamy and free flowing. These details are shown by an unfinished attempt on a panel, which was afterwards turned and re-used, now at South Kensington. The broad surfaces of flesh were often laid on in thick creamy colour, with zigzag strokes of the brush, about $\frac{1}{6}$ inch apart, just joining up and uniting in an almost smooth surface; the draperies were usually laid on freely in very flowing colour with long strokes of a full brush. . . . With the absolute certainty of the brush and the hard point being the principal tools, there really seems no clear instance, even in the jewellery on the thickest impasto, to prove that the palette-knife was used; and though I should be loth to deny it, yet the *onus probandi* certainly lies on those who would prove three instruments to have been used instead of two."

It must be remembered, however, that these panel paintings from the Fayum in Egypt are of a late period, the 2nd and 3rd cent. A.D., and that at the best they are very rude in execution compared with what the encaustic painting of Greece must have been in the older days, considering the praise it met with from writers whose statements in regard to other branches of art we have the means of controlling. In the older and better times we must expect more

refined methods to have been in use. In any case Mr. Petrie's pictures do not touch the question of painting on ivory with the aid of the cestrum. The question that remains is, how and to what extent the cestrum was employed with wax on wood tablets. The argument of Mr. Donner is that the cestrum was a tool in the form of a small elongated spoon, the handle ending in a sharp point, that it was used to lay on and manipulate the colours, much as a palette knife is now used, and that its sharp end was employed to sketch in the design. So also MM. Cros and Henry¹ accept this form of the cestrum, and interpret the passage of Pliny to mean that the cestrum was used both in painting on ivory, and on wood with a vehicle of wax. It is interesting to compare the ancient implements of painting found in 1847 at St. Médard des Prés, which MM. Cros and Henry illustrate (pp. 30–31), with the implements in use in modern times, which they give on p. 81. But let us turn now to Mr. Donner.

Referring to the passage of Pliny quoted above (3), Donner² proceeds:—

The third method, that which was employed in the painting of ships, is quite clearly described. The wax, to which colouring powder is added, was dissolved over the fire and applied with the brush. What is here meant is rather a coating of colour than painting proper. The rapid cooling of the wax would render, especially on larger surfaces, details of execution impossible; decorations and even figures kept in simple local colours, such as may be seen to-day on Sicilian boats, could be produced in this

¹ 'L'Encaustique et les autres Procédés de Peinture chez les Anciens,' (Paris, 1884), p. 11. See also p. 42 for encaustic on ivory, and p. 52 for encaustic on marble statues.

² Introduction to Helbig's 'Wandgemälde Campaniens,' p. 11.

way. When the painting was finished the colours were again fused by means of a pan of burning coal being held close to them.

The chief object in this was to give an even appearance to the surface, which by the application of hot colour is rendered very unequal as can easily be proved by experiments. The penetrating of the wax into the material lying below was a secondary result. This method was, according to ancient writers, employed, where to us now-a-days, painting with oil colour on wood or stone would appear suitable. That it was not used in mural painting we have the express statement of Pliny.¹ "With these pigments the wax is coloured for paintings that are burnt in—a process foreign to mural painting, but familiar in ship painting." With so explicit a declaration we need not look for this process on the walls of Pompeii.

We have on the other hand from various statements in ancient writers positive evidence that many panel or easel pictures were executed in encaustic, and we must therefore endeavour to find this art in the first two methods which Pliny describes with most provoking brevity in the phrase "*cera, et in ebore cestro, id est viriculo.*" Now since special mention is made of ivory as the material on which the second method was employed, there remains for the same purpose in the first method the panel of wood which Pliny did not deem necessary to specify, as he could assume it to be generally known. If in this most scholars agree, their opinions differ all the more on what follows. Some translate *cera*, as *in cera*. Others consider that *cera* of itself indicates the first method and *in ebore cestro*, the second. They think that the *cestrum* was only used in the second method, the brush in the first. Others again hold that the *cestrum* was the tool employed in both methods, but that wax was excluded from the second.

Passing over the many different views, I cannot leave

¹ N. H., xxxv., 49. *Ceræ tinguntur iisdem coloribus ad eas picturas quæ inuruntur alieno parietibus genere, sed classibus familiari.*

unnoticed those of Welcker, who says—"What was used in panel painting instead of the cestrum, is not said, but from the subsequent words *penicillo utendi* one might be led to think that it had not been the brush. This however is very improbable." And again: "To abandon the facility of the brush in an age when painting with the brush was in high favour, and to lay on the colour as with a pen, would have been very preposterous." Welcker supposes that the coloured wax was dissolved in volatile oil and applied with the brush. He considers a main feature in this art to have been the skilful guiding of the rhabdion, *ῥαβδίον*, or red-hot rod, as he names the instrument employed in fusing the colours. He says, "The enamelling and blending of the colours, the *splendor* which must have been the principal aim, could only have been produced by the most delicate moving of the heat to and fro. By means of the heated rod skilfully applied, held steady to the surface, caused to glide over it, kept more or less distant and thus regulating the tone of the colours, that effect could be more easily produced which depended on the penetrating and fusing of the tints." Welcker limits therefore the employment of the cestrum to the second method, and considers the brush as the instrument used in the first.

I do not share this view. Instead of reading like Welcker: *cera, et in ebore cestro*, I separate the words in this way: *cera, et in ebore, cestro*, that is, with wax, also on ivory, with the cestrum; and I believe that the first two methods were distinguished from the third in this, that they were neither executed with liquid wax hot or cold, nor with the brush, and that the difference between these first two was merely the material on which they were produced, the one on ivory, the other on panels of wood, with coloured or uncoloured ground, the same tool being used in both, and that not the brush, but the cestrum.

Their connection with each other is apparent from the way in which Pliny contrasts them with the third method. And that the brush was not employed in

encaustic panel painting is further confirmed by the fact that Pliny in his enumeration of the most famous panel painters maintains a regular and marked distinction between those who painted panels *a tempera* with the brush, and the encaustic painters. He does the same also when having concluded his series of the most celebrated of the first-mentioned masters, he passes on (xxxv. 112) to the *minoris picturæ celebres in penicillo*. Among the encaustic painters, he mentions Pausias, whom he calls "*primum in hoc genere nobilem* (xxxv. 123), and notices as specially worthy of attention, "that he, painting with the brush, restored the walls of Thespiæ, which had once been painted by Polygnotos, but in comparison was considered to be far surpassed by Polygnotos, because he did not compete in his own kind of painting. When dealing later with the less distinguished in both methods, Pliny states that "Laia of Cyzicus painted in Rome as well with the brush as on ivory with the cestrum principally female portraits, at Naples also on a large panel the picture of an old woman." Here obviously a distinction is made between painting with the brush on the one hand and painting with the cestrum on ivory and also on large panels on the other, and I claim that in this contrast of methods Pliny could not have been thinking only of encaustic painting with the cestrum on ivory, which after all could only have been employed to a limited extent, otherwise he would seem to be comparing great things with small when in speaking of Zeuxis, he says, "and he brought the already somewhat daring brush into high esteem, *for up to now I have been speaking only of it.*" This expression can only refer to an equally important technical process in the higher panel or historical painting, in which not the brush but the cestrum was employed, as it was in encaustic paintings of lesser importance on ivory.

Without following Donner in his argument as to what sort of instrument this cestrum was, it will be sufficient to state the conclusion arrived at. He con-

siders it to have been a sort of elongated spoon with a pointed handle, the mouth more or less flat, with a finely-serrated edge. As to its employment, he goes on to say :—

The cestrum or viriculum must thus have been a sort of spatula, and as the origin of these two methods of encaustic painting is without doubt to be traced to the practice of engraving inscriptions on wood or ivory-tablets coated with wax, by means of a pointed style, having a broad lower end which served to smooth down the wax (moreover the incising of designs on vases was very common among the ancients), it can readily be assumed that the pointed end of the handle of the cestrum was employed for the same purpose. With a tool of this nature, which could be larger or smaller according to the size of the subjects to be represented, the coloured wax could be conveniently applied and every form and shade produced. This also I have ascertained by individual experiments. It is not necessary to liquify the wax by heat, nor to dissolve it cold by a volatile oil. It simply requires the addition of a little balsamic resin or rich oil to be melted with the wax and colouring powder, so as to bring it to the approximate softness of modelling wax. The fine serrated edge of the cestrum prevents the too great accumulation of wax, when being laid on, and any over smoothness of the surface; for small subjects the edge might be plain.

It is some compensation for our loss of the Greek mural paintings executed by the great masters, to observe that at least the final stages of the art have been so strangely and so amply preserved in the ruins of Pompeii. For a long time the paintings of Pompeii have drawn all eyes to them. They have been studied with the minutest care. They have been classed according to the periods of progress or decline which

they illustrate, and in all this the general result has been a confirmation of the view that these mural paintings of Pompeii were the work of artists who had inherited the traditions of Greek painting from the Hellenistic age, that is to say the period after Alexander the Great. But of late years attention has also been called to Rome, because of the series of paintings found on the walls of the house of Germanicus (or Livia) on the Palatine Hill (1869), and more especially because of the mural paintings discovered in 1879 in the gardens of the Villa Farnesina, in the Trastevere. Moreover the series of very interesting pictures excavated on the Esquiline as early as 1849–50, consisting of landscapes illustrative of the *Odyssey* (Books x. 80—xi. 600) were for the first time in 1876 published¹ in coloured representations which convey a fair notion of the originals.

Beginning with these latter, it must be allowed that to modern eyes, accustomed to the perfection of landscape painting, these pictures appear to have only moderate merit. Equally they displease the student of ancient Greek art in its best times with its large ideal conceptions. But it is only fair to remember that in the days of those painters, the possibilities of landscape were just beginning to be appreciated. Moreover it is not to be forgotten that in the important matter of composition these pictures generally display a power which might well be envied by painters who far surpass them in technical execution and vividness of details.

Apart from their artistic qualities the two scenes representing the visit of *Odysseus* to the Shades are interesting as dealing with a part of the subject

¹ Woltmann and Woermann, 'Die *Odysseelandschaften*,' 1876.

of the painting by Polygnotos on the Leschè at Delphi, though there is no sign of the painter in Rome having been directly influenced by them in his composition. In the pictures from the Farnesina Gardens we have also some landscape sketches on panels from the wall of one room and above them a long narrow frieze representing scenes of daily life, for the most part apparently scenes of criminal justice, in which prisoners are dragged in abject positions before a judge. Yet these scenes are not drawn from Roman but from Greek life of the Hellenistic age.¹

Far more important are the pictures from another room of this house,² as to which it has been said by a highly competent authority³ that "the style is that of the Attic vases of the 4th cent. B.C., and above all recalls the white Athenian lekythi." That is to say, the painter had inherited some of the traditions and conceptions of Athenian art in the 4th cent. B.C. He is believed to have executed this work somewhere in the 1st cent. B.C., and it is a tribute to his fine appreciation and undoubted talent that in these changed times he was yet able to produce a series of paintings fit to recall the great art of Athens.

Some idea of the style may be obtained from the group here given (Fig. 118), which forms a centre-piece

¹ 'Annali dell' Inst. Arch.,' 1882, p. 309. The 'Monumenti dell' Inst. Arch.,' xi., Pl. 44, gives a coloured view of the landscape, with the narrow frieze above it. The frieze itself is given in detail in Pls. 45-48.

² Reproduced in the 'Monumenti dell' Inst. Arch.,' xii., Pls. 5-8 and 17-34, with text in the 'Annali,' 1884, p. 307, and 1885, p. 302. Pl. 18 gives a coloured view which is quite Pompeian in its aspect. Pl. 19 gives a sketch of the whole wall.

³ Mau, in the 'Annali dell' Inst. Arch.,' 1884, p. 319.

on the wall, and represents apparently a bridal scene under the guise of Aphroditè seated on a throne,



Fig. 118. Fresco found in Farnesina Gardens, *Rome*.

richly robed, with a crown on her head and holding out a flower. Behind her an attendant (Peitho?)

arranges her veil, before her stands Eros. With this may be compared another picture of an outdoor scene in which three Nymphs are occupied in the bringing up of the infant god Dionysos. Among the minor panels are a series of bridal and musical scenes.

In no case do these groups approach in dimensions the large frescoes of Pompeii. At the most they are between three and four feet high. The task set to the painter, as indeed was the case often at Pompeii also, was to paint the wall of a moderately-sized room so as to make it look like a great palace with extensive walls enriched with columns, friezes, candelabra and in particular with handsome pictures hung or painted on panels set in elaborate frames. The whole object was to reproduce on a small scale and with the illusions of perspective a picture of a great building that had no existence but in the fancy of the painter, acting on the traditions of his art as they had come down to him from the Hellenistic age of Greece. Among the architectural features are introduced a number of statues which are represented in a very markedly archaistic manner. That is to say, they profess to imitate archaic Greek statues of the 6th cent. B.C., but exaggerate enormously the peculiarities of that early art. This was a fashion in Rome in the 1st cent. B.C.

The same in general may be said of the paintings in the house of Germanicus (or Livia) on the Palatine,¹ though nowhere in these has the artist attained the ideal height of the Farnesina frescoes. In this instance the date has been fairly ascertained from

¹ 'Monumenti dell' Inst. Arch., xi., Pls. 22-23; 'Annali,' 1875, p. 210, Pl. KL, and 1880, p. 136. See also George Perrot, 'Memoires d'Archéologie,' Pls. 5-8.

certain stamps that were found on lead water-pipes. From these and the general features of the paintings it appears that the house on the Palatine had been decorated in the early years of the Emperor Augustus, when a taste still prevailed in Rome for the old Greek painting. Among the pictures the most interesting are, first, a group of Io, Argos, and Hermes. Io is seated in front of a rock and at the foot of a pillar surmounted by a statue of Hera. On the right Argos stands, half idly addressing Io. Meantime Hermes, her guardian, makes his appearance on the left, coming stealthily round the rock. Secondly, a group of Galatea (Fig. 119) crossing the water on a hippocamp, and astonished at the appearance of the monster Polyphemos beside a rock; a small Eros drives him on. Two sea-nymphs, companions of Galatea, are alarmed. In the distance are rocks and sea. Thirdly, we have a view of a street with high buildings from which a few persons look down with curiosity at a passing female figure with an attendant. What the subject is does not appear.

As examples of Roman mural painting available for study in this country we should mention here those in the British Museum which were obtained from the tomb of the Nasones on the Flaminian Way near Rome. These pictures were much broken and required a good deal of putting together. Nevertheless they may fairly serve to convey an idea of the art as it was practised in Rome in the 1st cent. B.C. The composition and the drawing of the figures may be mannered enough at times. Yet there is always in these pictures the singular charm of brilliancy of colour and true pictorial effect which belongs to ancient fresco.

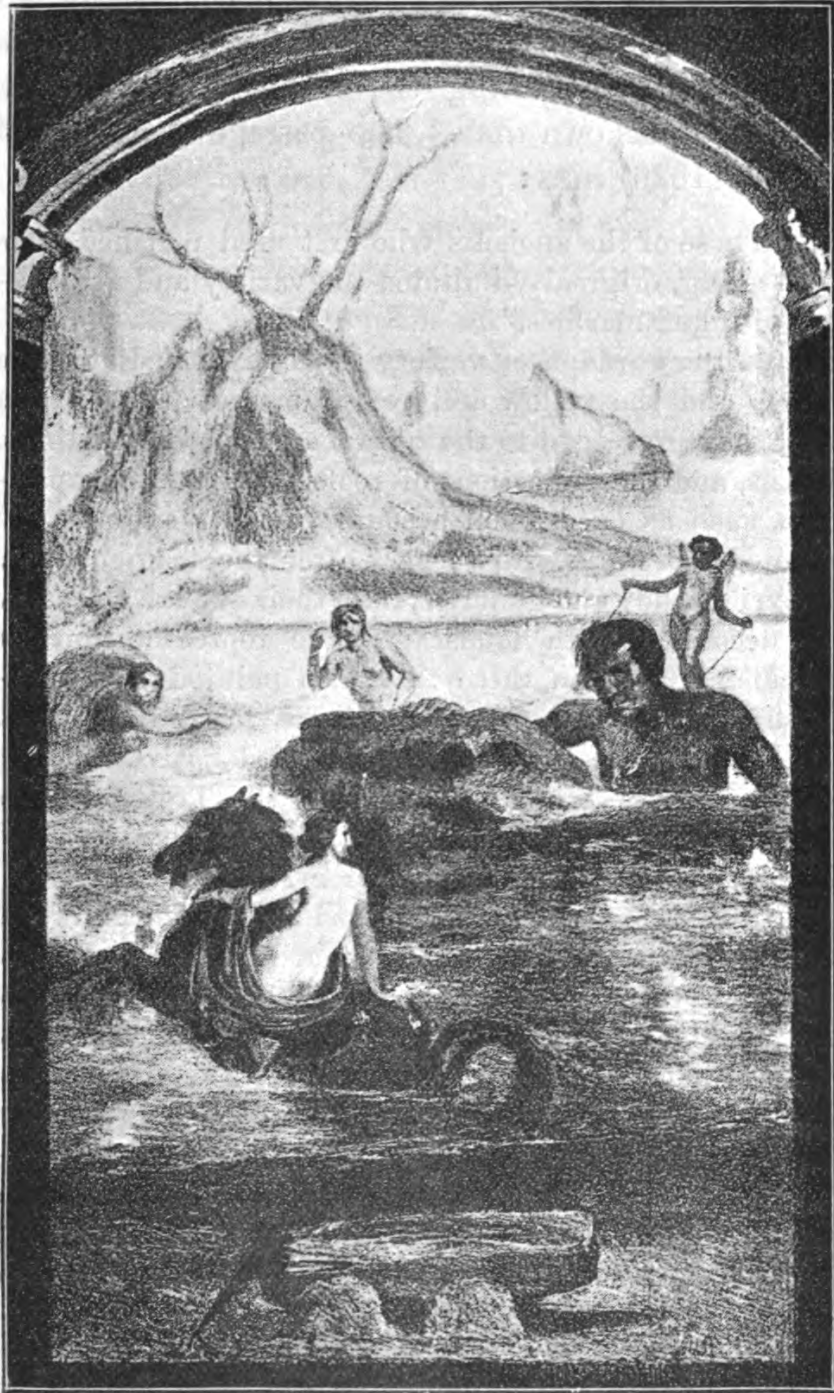


Fig. 119. Fresco in House of Germanicus, *Rome*. Polyphemos and Galatea.

But let us now hear what so competent an authority as the ancient architect Vitruvius says (vii. 5), when comparing the older mural painting with that of his own time. The passage as translated by Gwilt (1826) runs :

I. "Those of the ancients who first used polished coats of plastering, originally imitated the variety and arrangement of inlaid marbles."

II. "Afterwards the variety was extended to the cornices and the yellow and red frames of panels, from which they proceeded to the representations of buildings, columns, and the projections of roofs. In spacious apartments, such as *exedrae*, on account of their extent, they decorated the walls with scenery after the tragic, comic, or satyric mode ; and galleries, from their extended length, they decorated with landscapes, the representations of particular spots. In these they also painted ports, promontories, the coasts of the sea, rivers, fountains, straits, groves, mountains, cattle, shepherds, and natives, figures representing gods and stories such as the Trojan battles or the wanderings of Ulysses over different countries, and other subjects founded on real history."

III. "But those which were used by the ancients are now tastelessly laid aside, inasmuch as monsters are painted in the present day, rather than objects whose prototypes are to be observed in nature. For columns, reeds are substituted ; for pediments, the stalks, leaves, and tendrils of plants ; candelabra are made to support the representations of small buildings, from whose summits many stalks appear to spring with absurd figures thereon. . . . And yet the public, far from discouraging these falsehoods are delighted with them, not for a moment considering whether such things exist."

For the sake of convenience we have broken up this passage into three paragraphs and numbered them accordingly. But so far as the Roman paintings

are concerned which we have just described, it is only the second paragraph that we need notice. Nor is any comment necessary, so vividly do the words of Vitruvius recall these paintings, even to the "wanderings of Ulysses over different countries," as we see them on the Esquiline frescoes, and the garden scene at Porta Prima (Fig. 120). When, however, we come to the paintings of Pompeii the whole passage receives ample illustration. This passage has in fact proved a key for the classification of these paintings into three large divisions corresponding to the three paragraphs of Vitruvius. For this result all lovers of Pompeii owe a debt of gratitude to M. Mau for the long years of faithful painstaking and skilful research on the spot by which, and by which alone, it was possible to discriminate the three successive styles answering to Vitruvius, and to demonstrate each by further evidence from the successive methods of building and construction which had obtained in Pompeii, and which may still be seen amid the traces of ruin which had befallen Pompeii previous to the final catastrophe.

The three successive stages which M. Mau recognises in the paintings of Pompeii are named by him, (1) the Incrustation style, (2) the Architectural style, (3) the Ornamental style. These he finds associated with certain methods of construction that succeeded each other in the houses and public buildings. In the oldest of these methods the houses were low, apparently always of one storey; but the fronts or façades, the principal walls and pilasters, are noticeable for the regular courses of carefully squared limestone blocks of which they are built (Casa del Chirurgo), reminding us of Greek masonry of the best times. In the inner or party walls, where less solidity

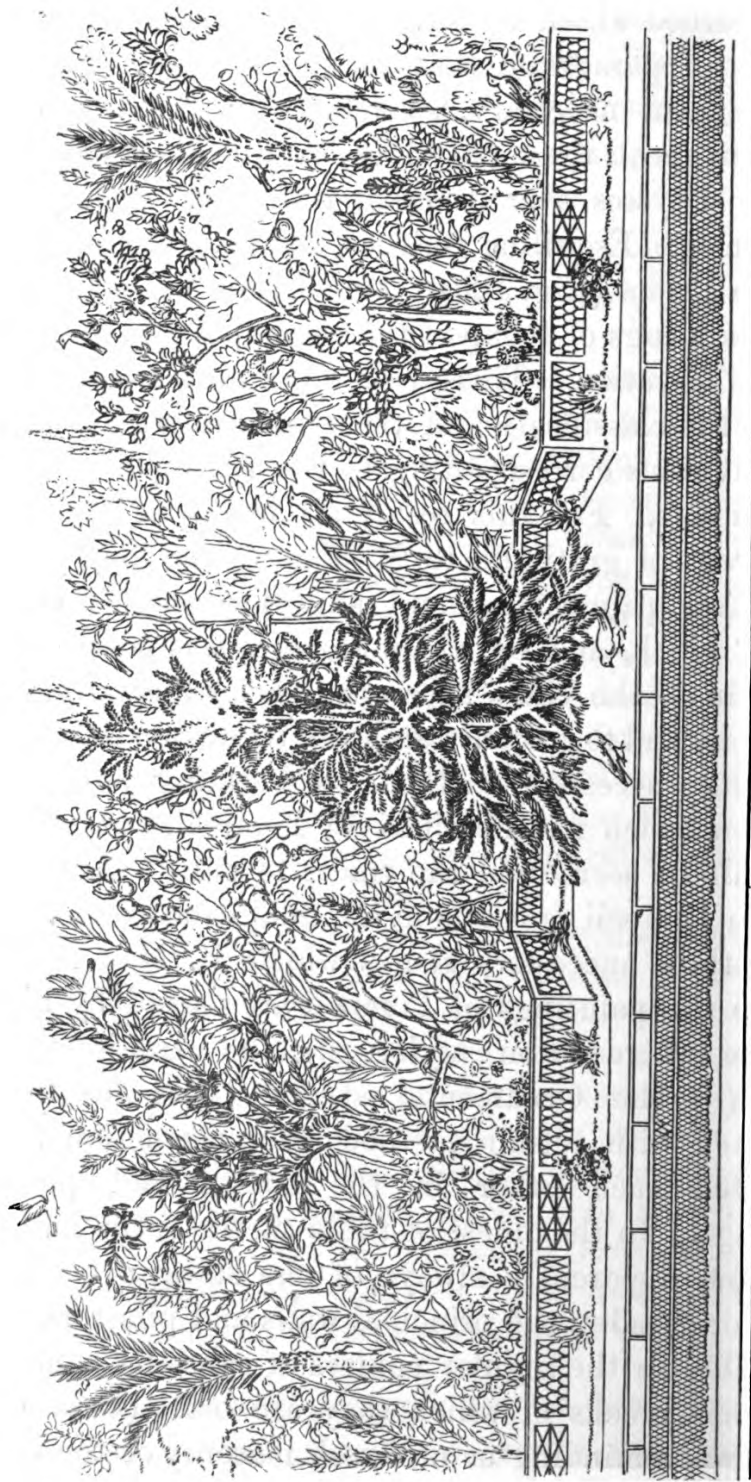


Fig. 120. Fresco. From *Prima Porta*.

was required, it was thought sufficient to build up a framework of squared limestone blocks and to fill in the intervening spaces with small stones bound together with lime. Walls of this kind would of course be coated with plaster or faced with thin slabs of marble; but no painted decoration has been found on them. In the second method the façades and principal walls of the houses retain the old aspect of regular courses of squared stones with the difference that the stone now employed is a fine tufa and that the joints are surrounded by a rebated border (Casa del Fauno and Casa di Sallustio). The construction of the inner or party walls has deteriorated into rubble consisting of chips of stone bound firmly together by a hard cement. These walls were coated with a fine hard plaster, which was painted over so as to imitate regular courses of squared blocks of different coloured marbles with rebated borders round the joints. That is to say, the poorer the wall itself the more must it pretend to be made of the richest and most finely hewn marble. In the third method the façades as well as the inner walls of houses were coated with plaster. The older masonry in regular courses of large squared blocks had been entirely superseded; but its influence was still apparent in the stucco and coloured imitations of it, as on the façade of the Casa del Questore (dei Dioscuri) with its high red base surmounted by stucco decoration imitating white squared blocks with rich borders. On the inner walls in general this masonry was no longer even imitated in painting. The walls now were composed of small stones and tiles bound together with a cement, which gave the greatest hardness and strength to the wall. With all their convenience and

usefulness walls of this sort were for the most part extremely mean in appearance. It was inevitable that they should be covered with plaster, nor was it strange that even their existence was sought to be concealed behind attractive views painted on them.

The *first* or *Incrustation style* of decoration is characterised by this, that it seeks to reproduce in moulded stucco and colour, the aspect of a wall built of finely-

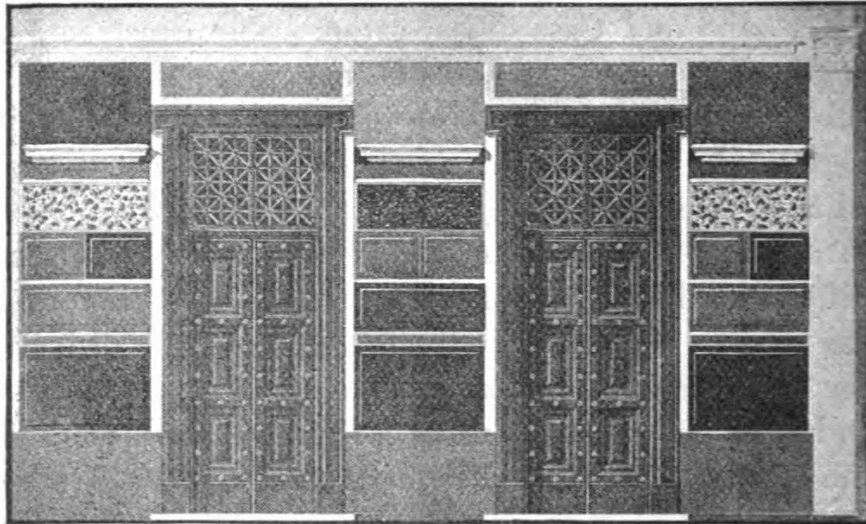


Fig. 121. From House of Sallust, the doors restored. Mau, Pl. 2.

squared and jointed blocks of marble, together with more or less of architectural features. As a rule the incrustation does not begin immediately at the foot of the wall, but follows directly above a long base or plinth, which is generally painted of a uniform colour on smooth unmoulded stucco. From this point it extends some way up the wall, seldom to the top. The general scheme, however, will be best understood from the decoration of the Atrium in the Casa di Sallustio, as seen in Fig. 121.

At the very bottom of the wall runs a narrow band of a reddish colour, separated from the broad yellow base by a line scratched into the wet stucco. Both it and the base are simply painted on smooth stucco. On the base rests a course of large black rectangular slabs with rebated or sunk border. Next above them projects a narrow purple fillet with a plain moulding along the top. To this succeed two courses of smaller rectangular slabs of different colours, yellow, red, and violet. These two courses are separated from each other by a white stucco band with projecting edge, an element seldom wanting in this decoration, though foreign to the Basilica. Then comes a course of bright variegated marble, having along the top a projecting moulding. This moulding is not carried all round, as in some cases, like a frame, but instead of that the edges of the slab on the sides and along the bottom are bevelled down to the background. Above this there is a smooth violet band, which we may term the frieze, which is again crowned by a pretty heavy stucco cornice with dentals, and of fine Greek form obviously imitated from an Ionic temple. This cornice does not quite approach the pilasters and door-posts, but breaks off at a short distance from them, receding towards the bottom, the return showing the same profile as the front. This was a necessary proceeding, for to have prolonged each member of the cornice till it was flush with the pilaster or door-post would have had an unpleasing effect, owing to the greater projection of the cornice. Between this and the upper cornice there is no incrustation; the wall is divided into compartments and merely painted in plain colours. In this example we have the leading features of this style of decoration: the base, one course of large rectangular slabs, two courses of smaller rectangular slabs, and the cornice which is specially characteristic of this style. Details, however, vary considerably on different walls, and even in the same house, according as the decoration is more or less rich. Variety is given by the different arrangement of the colours, the introduction of inter-

mediate members and by the modification of the rectangular slabs themselves. The colours employed in the slabs are such as would best simulate marble; violet, yellow, green, less frequently red and black and white. The rebated border is often of a different colour from that of the slab. In the lowest course the large slabs either

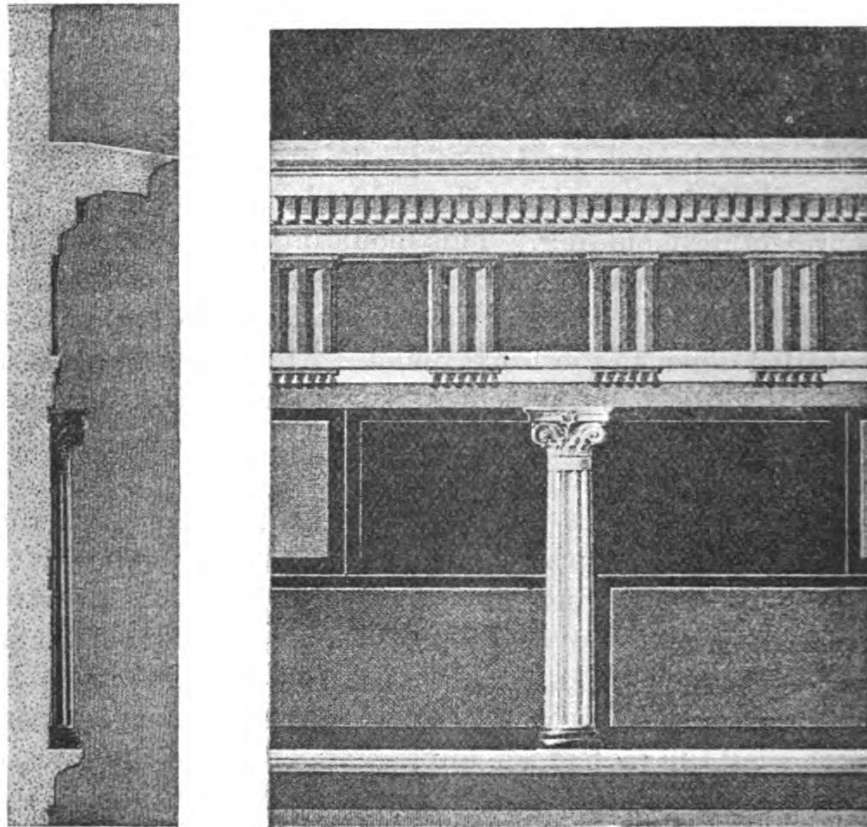


Fig. 122. From House of Sallust, Pompeii. Mau, Pl. 1.

lie horizontally or are placed upright. In the former case they are always black, and almost always without borders. On the other hand when the slabs are placed upright there is much variety in the colouring and borders. From which, with other reasons, it may be inferred that when these slabs are found standing vertical, they indicate a late stage of this system of decoration,

when its underlying idea of a wall or regular masonry was becoming obscured.

As an example of the Incrustation style in which more elaborate architectural features are introduced, we give (Fig. 122) part of another room in the House of Sallust. The lower portion of the wall having been plastered over at a later period, is not here reproduced, only what remains of the original decoration. First there are two courses of the usual horizontal blocks of different colours, but having in common the rebated border, apparently of a uniform dark red. Against them stands an Ionic half-column moulded in stucco, supporting a Doric entablature consisting of epistyle, mutules, triglyphs, metopes, and dental cornice, for which see section included in Fig. 122. The introduction of triglyphs and metopes is, however, not common in this style of decoration.

As already said, the incrustation is, as a rule, limited to a part of the wall, the base and upper space being excluded from it.

The base is simply painted on a smooth surface; in this first style always of a lighter colour than the slabs immediately above it, from which it is very usually separated by a slight moulding. The prevalent colour of the base is yellow, with exceptions such as light variegated marble. In it rectangular blocks with rebated border rarely occur, and then chiefly where the wall is divided into compartments by actual pilasters or half-columns, as in the Basilica and in the two peristyles of the Casa del Fauno. The upper wall above the cornice is rendered in various ways. Very often, especially in small rooms, the decoration entirely ceases and there follows only a surface covered with coarse white stucco sometimes broken up with windows, round which is a line of finer stucco. Another method is to paint the smooth wall with different colours in large masses. Sometimes indeed, though rarely, the incrustation is continued above the cornice, and we find rectangular slabs with rebated border. These, however, though of different colours, have

a unity of effect through being identical in shape and having in common a border of uniform colour, so that even here the wall culminating in the dental cornice has the appearance of a screen; above and beyond it the actual wall of the room is seen, which in some cases has a second cornice. This screen, as we have called it, is in a way characterised as the external wall of a building resting on a solid base and crowned by the projecting cornice of an Ionic temple.

This style of decoration is found almost entirely on the buildings of tufa masonry, that is, in the period of the greatest building activity in Pompei. It is seen best in the Basilica, the Casa di Sallustio, and the Casa del Fauno. From an architectural point of view the buildings of this tufa period exhibit in the orders of the columns and in the finely worked out details the strongest and most direct Greek influence of the 3rd cent. B.C. The decoration may be traced to the same source. At that date it is understood that in rich towns such as Alexandria costly marbles were largely employed as decoration for walls, both of private houses and public buildings. In Italy, on the other hand, the employment of marble cut into slabs for facing walls, was, according to Pliny, still unknown in 78 or 74 B.C., at which time, as we see from an inscription scratched on a wall in the Basilica, indicating the year 78 B.C., the stucco imitation of marble facing was already in operation. It was therefore not an imitation of a practice existing in Italy. How long this stucco decoration had been employed before 78 B.C. is uncertain, but probably both it and the buildings of the tufa period have to be ascribed to the 2nd and 1st centuries B.C.

In the *second* or *Architectural style* the decoration, which in the previous stage was executed in moulded stucco, is now produced by painting alone. That is the first important and general difference. Next we have to notice two stages of development within this second style. The first stage reproduces so exactly the older incrusta-

tion system, that it may be called a painted copy of the same. In one very important point the older method had been at a disadvantage. It could not without encroaching on the room render a strongly projected base to correspond with the heavy cornices higher up on the wall. In painting with the aid of perspective, this was an easy task, and

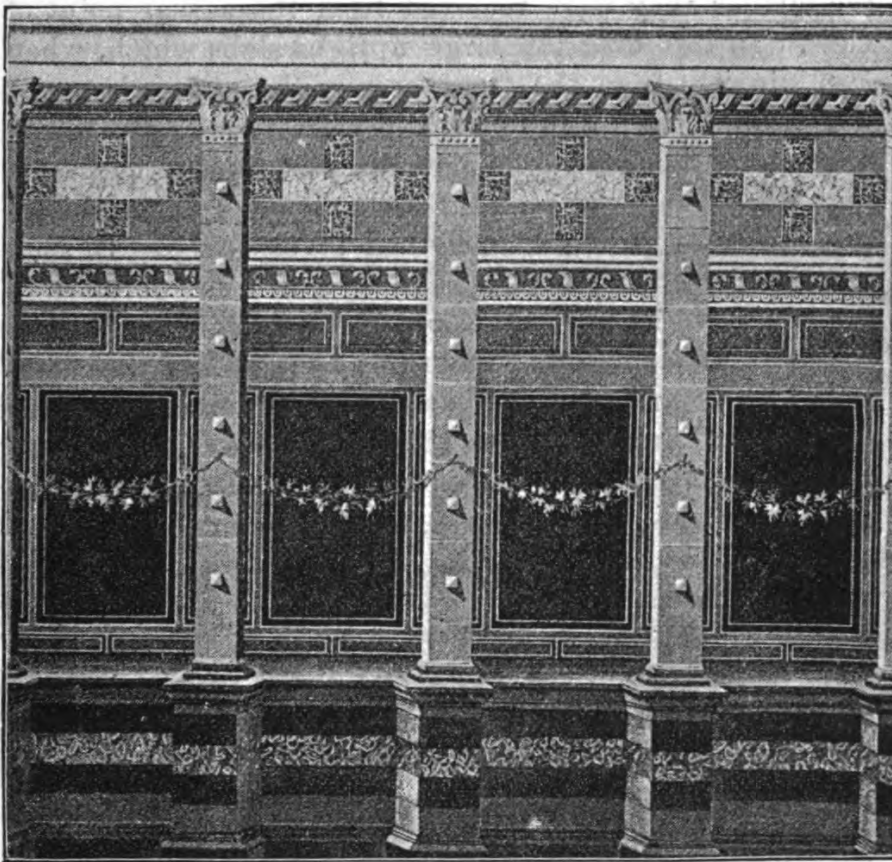


Fig. 123. From the Casa del Laberinto, Pompeii. Mau, Pl. 3.

this is where the second stage comes in (Fig. 123). The base was now distinctly represented as that of a colonnade with columns supporting a roof and having a lower wall behind them; so also the spaces above this lower wall, which in the older incrustation style were mostly left vague and indefinite, now appear as belonging to a room or rooms beyond. It was not possible to carry out this

system of perspective thoroughly without destroying the rhythmic regularity of the slabs which up to now had been so conspicuous an element on the walls. For instance, had the columns or pillars together with the wall behind them been painted in perspective from one uniform point of view, the result would have been a regular diminishing of the spaces between the columns, the farther they were removed from the actual point of view. In this case the large upright slabs which, when seen directly from the front, occupy the spaces between and behind the columns with perfect regularity, would be rendered unequal. To prevent this, and at the same time to maintain the structural character of the architecture, different points of view had to be taken. In such practice there must always have been a sense of unsatisfactoriness which in time would be sure to invite further change. What followed was this:—the idea of the colonnade was so far given up that all that remained of it was the low wall or screen with projecting base.

This wall, no longer representing masonry, was divided into large fields, usually three, having an imposing structure in the centre, resembling in form the shrine (*sacra-rium*) which we see in a house of the incrustation style, that of M. Epidius Rufus. On the top of this low wall could be painted masks, vases, and small panel pictures. The frieze of this low wall might be richly decorated with arabesques, interspersed with animals, Cupids, &c. The ornaments supposed to be executed in wood, metal, glass, gilding, reliefs in stucco and pictures, were painted to convey the exact nature of the material. An example of this later enrichment may be seen in Fig. 124.

The centre-piece which we have compared to a shrine, contains here a picture which reaches nearly to the top, where it leaves a view out into the open air. On the roof of the shrine stand two winged figures with hands raised as if supporting the epistyle which stretches from one corner pillar to the other, though that would be impossible in

reality, as they stand considerably further forward than the epistyle. This representation of figures in the round

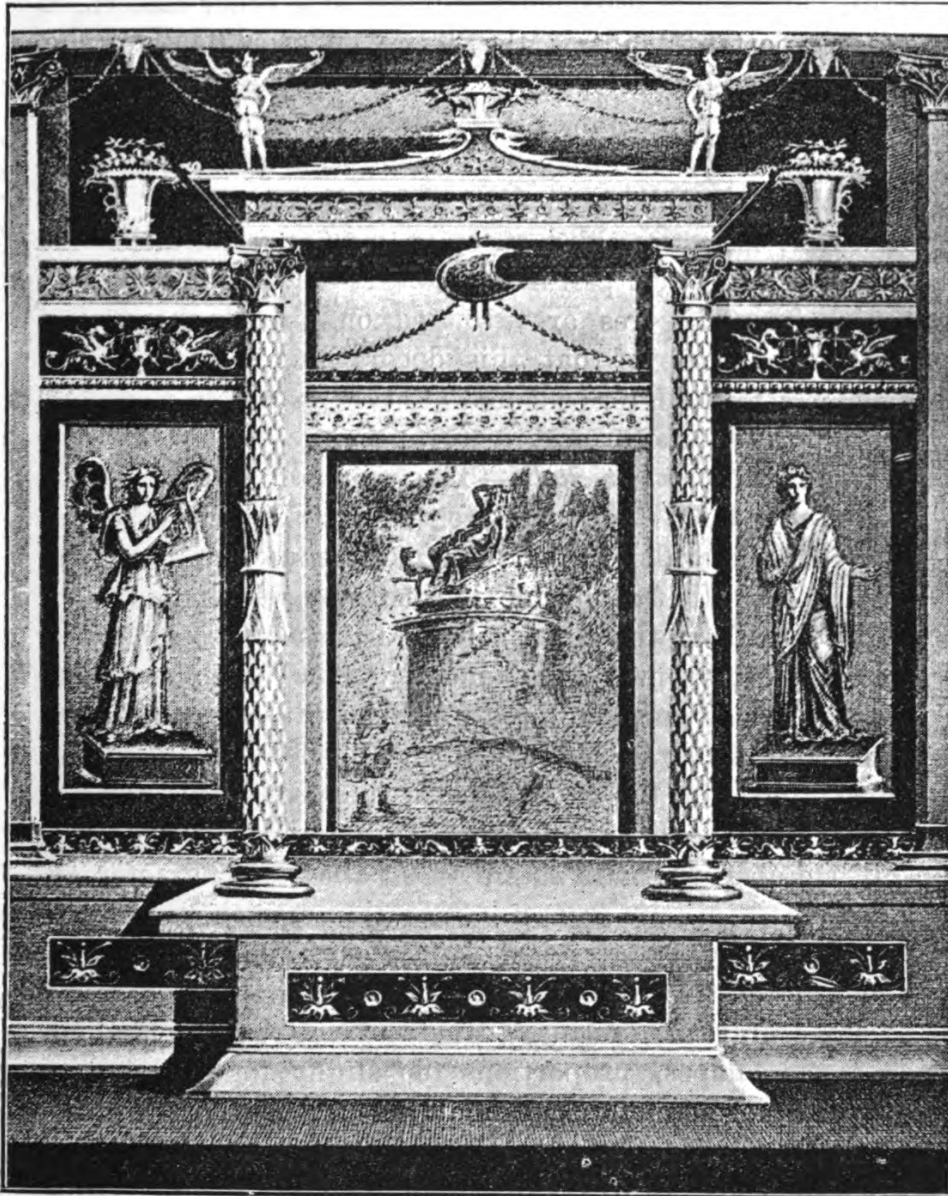


Fig. 124. From House in Pompeii. Mau, Pl. 5.

may be added to the characteristics of the advanced stage of the second style. This is true also of the tendency to

supersede the simple fluted shafts of stone columns by wooden shafts made to imitate palm stems. The entire centre-piece seems to imitate a structure in wood enriched with borders and ornaments of metal and other materials. One important point is the figure on each flank of the centre-piece, because figured representations as a rule do not make an appearance till the next or third style. Up to the present stage they have been seen to occur only in imitations of small panel pictures attached to walls. Here, however, as in the third style, they are not imitations of panel pictures but pictures themselves. The manner in which these figures are grouped on the flanks of the centre-piece, shows that this decoration, in spite of its tendency to the later ornamental style, is still in the main true to the second or architectural style.

Third or Ornament Style.—The tendency of the second style in its later stage had been to simplify the arrangement of the wall; in particular to leave out from the upper part of it the marble incrustation which had been handed on from the first style, and thus to secure a field for new ornament. This tendency now became a principle. A wall surmounted by a cornice above which are small architectural views, is an established feature in the third style (Fig. 125). And just as the second style had not been content with reproducing merely architectural forms, but had also sought to stamp an ornamental character on its architecture by a careful imitation of rich and varied materials, by occasionally sacrificing its architectural construction to decorative effect, and even converting architectural forms into ornaments by giving them fantastic shapes, proportions too slight for reality, or suppressing characteristic mouldings (upper part of wall, Mau, Pl. 8); so also the third style set itself to realise fully the ends towards which these efforts of the preceding stage had been tending, and to create a truly decorative as opposed to an imitative style. The architectonic features were attenuated to a degree impossible in reality, and the flat surfaces were greatly enlarged, no longer

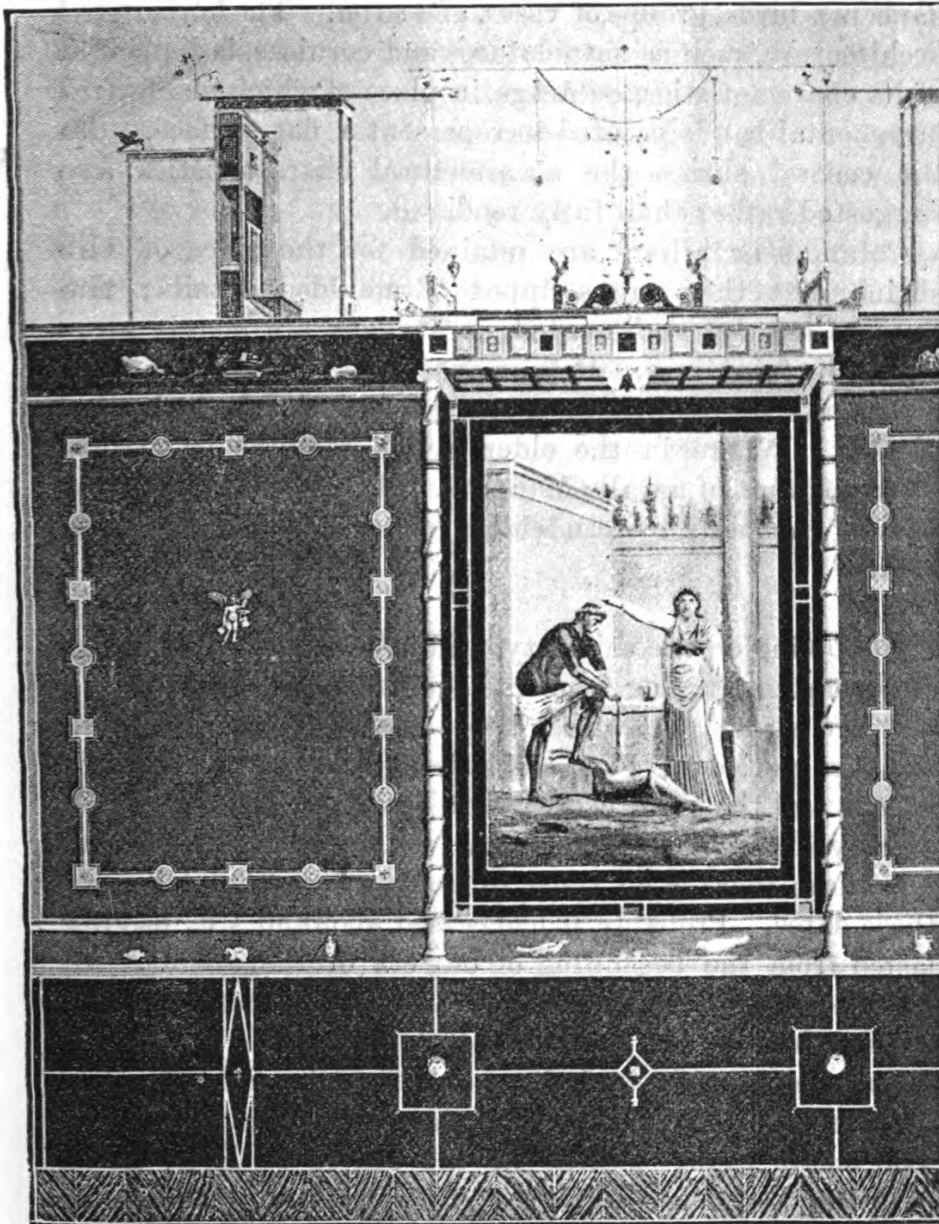


Fig. 125. From House of M. Spurius Masor, Pompeii.
Mau, Pl. 12.

representing slabs of this or that material, but being simply fields for decoration and generally having a small painting in the middle of each field. Among these

paintings we find figures floating in the air (Cupids, dancers), birds, groups of vases, and so on. The horizontal architecture, such as entablatures and cornices, is deprived of its characteristic mouldings, in place of which are found ornamental bands painted to represent a flat surface. In the central shrine the architectural characteristics are suggested rather than fully rendered.

Columns or pillars are retained for the sides of the shrine, but they are stripped of moulded details; the flutings are not represented, or at most are merely suggested by faint lines. It is an exception to find projecting ornaments unless where a special material is to be indicated. Where in the older styles columns or pillars stood in front of a wall (Mau, Pls. III., IV.), they are now usually replaced by candelabra or even by ornamental bands.

Following on the third style, M. Mau finds a final stage of decoration, having more the character of a decline than of a new style. That final stage was contemporary with the last period of Pompeii between the earthquake of 63 A.D. and the great eruption of Vesuvius, 79 A.D., which destroyed and buried the city. Of the third style in its pure form there is no trace in houses decorated between these dates. Probably it had ceased about 50 A.D., having lasted from the beginning of our era or thereabout. In this last stage of decline it will be seen (1) that the ornaments which in the pure third style had been painted as flat are now made to imitate reliefs and moulded work. (2) The pictures within the shrine become smaller. (3) The small flying figures in the centre of large fields (Cupids, animals, &c.), give place to larger figures or groups and greater freedom. (4) When architectural views occur in the upper wall, which is seldom, they are confused in the arrangement, coarse and tasteless in execution, with a prevalence of yellow colour, and none of the taste and delicacy which had distinguished the slight architectural views so frequent in the upper parts

of walls in the best stage of the third style. (5) The base, which is generally black in the third style, with white lines crossing each other or forming simple patterns, is broken up with broad coloured oblongs (each having a bird, a figure, a plant), bands, borders, garlands, and even imitations of small marble slabs. Common to both stages are the rows of plants. (6) The cold white colour which forms the ground of borders in the third style, is now superseded by yellow; this is a radical element of difference. (7) The purity and accuracy of drawing which courted close inspection, gives place to a more complicated system of ornament, in which error is not easily detected.

If an attempt were to be made to reconstruct the lost mural decoration of Greece out of these successive stages of decoration in Pompeii, the first step would probably be to strike out a great part of M. Mau's third or ornament style, and to ascribe it to the invention of Roman artists, exaggerating into fantastic shapes what they had seen in more simple forms in Greece. We may assume that when Vitruvius in the passage already quoted denounces the mural painters of his own time for a tastelessness corresponding exactly to the third style of Pompeii, he is thinking of Roman painters. It was a Roman Ludius,¹ living in the time of Augustus, who, according to Pliny (N.H. xxxv. 116), had been the first to introduce into mural painting charming views of villas, porticoes, gardens, groves, hills, fountains, canals, rivers, coasts, interspersed with human figures in various occupations, as in fishing, sailing, walking, driving, and such like. We may readily suppose that Ludius had a large following among his countrymen. The natural aptitude of the

¹ Helbig prefers to write the name Tadius.

Italian race for work of this sort would favour the supposition ; and if this is so, it would have been for those Roman painters an easy step from fanciful villas and porticoes to forms of decoration which had equally little relation to reality.

But after all, in any attempt to discriminate between what was specially Roman and what Greek in the Pompeian paintings, we are confronted at the outset with the fact, that in those days it was a distinction among the Romans, in art as in literature, to be imbued with Greek taste and penetrated with a knowledge of the artistic conceptions of the Greeks. However we might be tempted to separate the landscapes and assign them to local inspiration, because of a certain charm of originality, freshness and brightness which they possess, reminding us of the local inspiration in the poetry of Theocritus, Moschos and Bion across in Sicily, yet we miss in those landscapes the accurate delineation of local scenery which would be expected were they from first to last the inspirations of local talent. We miss the changing beauty of the sky and sea. Some of the striking alternations of nature are indeed recognised, but there is no attempt to rouse our sympathy with nature herself. Instead of that we are always taken back to some element of human life, no matter how insignificant. The artist was happy when he could fall back on Greek legend and introduce into his landscapes such figures as Dædalos and Icaros, Ulysses passing the sirens,¹ and much else. In an artistic sense, as parts of a composition these figures are mostly of little or no account, but they touch the chord of human interest by an easier process than the true rendering of the

¹ Examples of these subjects may be seen in the British Museum.

landscape, had that occurred to the mind of the painter. In other instances, as where Ariadne awakes on the shore to see the ship of Theseus out at sea, the human figure becomes the principal feature; the landscape proper is made no more of than is necessary to explain the story. In the touching group of Pero and her father Cimon in the prison cell, the stream of light coming from the narrow window has been observed and utilized by the painter, but not at all so as to produce the effect of light streaming into the gloom of a prison cell, with the associations which the contrast arouses.

Among the many pictures of Pompeii there is one which may be definitely claimed to represent a local scene and incident, the tumult which took place in the amphitheatre of Pompeii in A.D. 59, between the Pompeians and people from Nucera. Though little more than a sketch, this picture is extremely interesting because it shows that a turn for work of this kind was not wanting among the painters. We see it again in the pictures of life in the forum, the workshop of the fullers, and numerous illustrations of the trades and occupations of daily life. And if this faculty was never encouraged so as to develop into something like the genre painting of modern times, that may perhaps have been due to the all-prevailing influence of the Greeks, with their love of ideal forms and conceptions, and their habit of seeing the humorous or grotesque side of humble daily life, for which a rough artistic sketch was sufficient.

So far as Greek painting in its higher walks (*Megalographia*) is concerned, we can hardly be wrong if we assume that the series of large mythological pictures in Pompeii fairly represents its

general aspects after the death of Apelles and his great contemporary Protogenes. In these pictures landscape is very freely introduced for the sake of localising and explaining the subject. In most cases it is kept strictly as a background, it does not share the same light nor the same importance as the figures in front of it. These landscapes may in fact be considered additions to the picture, put in when the main figures have been painted in the foreground, much on the same principle as that on which Sir Joshua Reynolds would have put in behind a full length portrait of a nobleman, a view of his park and country seat. But though the principle was the same, the landscape backgrounds in the Pompeian pictures were not nearly so indifferent to the main figures. They were more essentially a part of the subject as a whole.

In many of the large mythological pictures it will be seen that the background consists of large masses of rock, which in a sense serve as a screen behind the figures. Though very simply, and from a naturalistic point of view ineffectively treated, these rocky masses have been carefully thought out and disposed for the purpose of lending dignity and solemnity to the figures in front of them. They are mostly of a light colour; it is an exception to find an intentional darkening of the background, as in a picture of Selenè visiting Endymion,¹ where the colour of the background has been made to suggest a dull moonlight effect,² such as Selenè would bring with her. At the same time the star which Eros, standing in the background, has above his head shows how much reliance was placed on mere symbols even

¹ 'Mus. Borbonico,' ix., 40; *cf.* xiv., Pl. 19.

² Helbig, 'Wandgemälde Campaniens,' No. 955.

here where a direct attempt has been made to realize a true effect of light. Otherwise this picture may serve to illustrate the more simple compositions, in which a rocky background is skilfully introduced.

A little more complex, but very harmonious in effect, are the six groups of Perseus and Andromeda¹ seated on a broad shelf of rock, she looking down at the reflection of Medusa's head in the water at her feet, while he holds up behind the actual head of Medusa. The rocky background rises high on the right, and either descends behind the two figures, leaving them to be partly defined against foliage, or is replaced behind the figures by a high garden-wall, which acts as a sort of screen against which the two figures stand out.

Much more in the nature of true landscape are the two representations of this same story where we see Perseus in the act of releasing Andromeda, and handing her down from the rock to which she had been bound. That is on the right side of the picture. In the middle is a narrow view of the sea stretching away into the background. On the left is again a cliff, on which sit two female figures, spectators of the rescue. Such is the scene in one of those two pictures ('Mus. Borbon.,' vi. pl. 50). The other leaves out the female spectators.

In a picture of Silenos seated and holding up the infant Dionysos we have again a high rock against which the group of figures on the left are placed as if in relief. This group consists of Silenos with the infant Dionysos, and Ariadnè, forming the principal plane, and behind them two nymphs looking on, of

¹ 'Mus Borbonico,' v., Pl. 32; vi., Pl. 50; ix., Pl. 39, and xii., Pls. 49 52. We refer specially to Pl. 50.

whom only the heads and shoulders are visible. On the right sits Hermes on a fallen column, and having a round tower as a background. Between these two parts of the composition is a small figure of Pan.¹ In a picture of Dionysos finding Ariadne asleep² we have an instance of a rocky background, which serves as a screen not only to throw up the figures in front, but also to conceal behind it all but the heads of a group of figures who are represented as peering over the rocks at the meeting of Dionysos and Ariadne.

It is true that the manner of filling in backgrounds to mythological subjects as here indicated cannot be positively said to have been derived from Greece, owing to the utter absence of Greek mural painting and the poverty of ancient records concerning the condition of that art in Greece after the time of Alexander the Great. But we know that the mythological subjects in Pompeii were themselves constantly drawn from Greek sources, while as regards the backgrounds to them it has been well pointed out by Helbig that in those pictures where among rocks and cliffs we see figures personifying sea-coasts (*ἄκται*), meadows (*λειμῶνες*), and such like, we must infer from the use of the Greek names inscribed beside them that they were originally Greek creations. His argument is that had the Romans been the first to introduce these backgrounds with their conspicuously named personifications of coasts and meadows to help out the slightly sketched landscape, they would have

¹ Helbig, 'Wandgemälde Campaniens,' No. 376.

² 'Mus. Borbonico,' xiii., 7. Compare also *ibid.* Pl. 6 for a variety of this subject treated in a still more complex manner. This subject will be found more simply composed in the pictures in 'Mus. Borbon.,' xi., Pls. 34 and 35, and viii., Pl. 4.

employed Roman not Greek names. And if this is not conclusive, it must be because the conviction that there had been a Greek original for these backgrounds as well as for the mythological compositions in front of them, is so unanimous that no argument will be entirely satisfactory short of the finding of the actual prototypes in Greece.

In regard to one of the pictures of Perseus and Andromeda mentioned above ('Mus. Borbon,' vi. pl. 50), and that of Io and Argos in the house of Germanicus in Rome, also mentioned previously, Helbig has endeavoured to trace them to the Athenian painter Nikias, of whom Pliny says that he painted large pictures of Andromeda and Io. Though Pliny gives no details of the other figures in these compositions, it is manifest that an Andromeda without Perseus or an Io without Argos would be unintelligible. We must therefore assume the presence of at least those figures in the pictures in question. The story of Io has been preserved in four Pompeian paintings as well as in the replica in Rome, while that of Andromeda at the moment of her release occurs twice in Pompeii. Helbig points out that the two latter, as well as the Roman picture of Io and Argos, have been executed on a large scale, recalling the expression employed by Pliny as to the size of the pictures by Nikias. It is maintained that the beauty of the figures and the excellence of the composition are such as to suggest a fine Greek original, corresponding with what is known in records of the style of the Athenian painter. The same conclusion forces itself upon us when we observe the freedom which the copyists have allowed themselves in leaving out what did not suit them. For

instance, the Pompeii pictures of Io and Argos are content with these two figures, whereas in the Roman copy we have on the left a figure of Hermes, which not only balances that of Argos on the right in an almost necessary manner, but also indicates the progress of the story, with the ultimate release of Io when Hermes shall have slain Argos. Therefore the Roman picture goes nearer to the original. In point of composition it may be true to the original.

In the story of Andromeda we have also an instance of the release of a heroine from the approaching torture of a monster, and this leads Helbig to believe that the two pictures of Io and Andromeda, ascribed to Nicias had been intended as companion pictures. Be this as it may, the Pompeian pictures of Andromeda differ among themselves to this extent, that while one of them represents only Andromeda and Perseus, the other adds on the left of this group two female figures seated on rocks, which Helbig justly classes among the personifications of coasts (*ἀκταί*) mentioned above. Here also the more complete composition would seem to be nearer to the original than the abridged versions, because it is surely much easier to abridge than to invent new elements for a picture.

In considering the landscape backgrounds of Pompeian paintings, a student of Greek vases must be struck with the extraordinary difference which exists between these two branches of art. On the vases, especially those of the best period, there is only occasionally the merest indication of a background. As a rule the figures stand or move in single file, so to speak. The vase painter has no resource but in the perfect accuracy of his drawing and the symmetry of

his composition. In the early and in the late periods he may try to hide bad drawing by bright whites and purples in the accessories and details; but that is the most he can allow himself. Even on the white Athenian lekythi, where he may indulge in blues and greens, he is still restrained by the fact that his figures must after all be mainly drawn in outline and that one of the severest tests of drawing is an outline of a figure on a white ground. These considerations, so far as they go, undoubtedly tend to raise a suspicion that the Greek mural and panel painting of the age contemporary with the vases had avoided the indication of backgrounds to the degree in which we find them indicated at Pompeii. On the other hand we have to remember that from the time of Apelles onwards the records of Greek painting are explicit as to the charming effects that were obtained by colour, and we know how an outline drawing of a figure, which in mere black and white appears hard and even repulsive, may, by a skilful use of colour in the figure and the background, be made to appear refined and fascinating. What we thus know, the Greeks may surely be supposed to have been quick to learn. The first step once taken, of sacrificing drawing to colour landscape backgrounds with just enough of colour to form a true background, against which the figures would define themselves, would follow as a matter of course.

In front of these light-toned backgrounds the mythological groups which form the great feature of the pictures are painted, generally with a reddish brown colour for the flesh, and with greens, blues, reds, and yellows for the draperies and details. In many instances a prominent feature is the large

masses of light shed over the fronts of the figures. Wherever this light falls, whether on nude forms or on brightly coloured drapery, the painter assumes that the true colours would be, so to speak, scorched out, and he replaces them by masses of white. His observation of the effect of light was just, but the excess with which he rendered it in many of these pictures was doubtless due to the limits inherent in ancient fresco painting, where the subtle gradation of shadows, such as we see in oil painting, was an impossibility. At the same time there is a fairly large proportion of Pompeian frescoes in which this excess of light, flashing on the fronts of the figures, does not appear, especially so in those compositions where the figures are mostly nude, and when there is no extent of draperies in brilliant reds, greens, blues, or yellows, over which an effulgence has to be shed by the contrast of strong light. Possibly such compositions were not unfrequently chosen because of the finer scope they offered for more careful drawing and more severe composition.

Not that this result always followed. Witness the famous picture of the Sacrifice of Iphigeneia.¹ It is not only that the lower limbs of Iphigeneia have been forgotten by the artist, but the drawing also of the two figures, Ulysses and Menelaos (?), who are carrying her along to the altar is as ungainly as could well be. And yet there is a fascination about the picture as a whole which leads us readily to accept the current opinion that the original composition had been the

¹ From the 'Casa del Poeta': 'Mus. Borbon.,' iv., Pl. 3: Overbeck, 'Her. Bildwerke,' Pl. 14, No. 10. This picture is fully described and discussed by Helbig, 'Wandgemälde Campaniens,' No. 1304.

work of a great Greek painter, Timanthes,¹ whose painting of this subject appears to have been famous in antiquity for the gradation of sorrow in the figures, culminating in the averted and concealed face of Agamemnon. In that original we may assume that the drawing had been as nearly perfect as could be, especially in the central group of Iphigeneia and her bearers. In his criticism of this picture, Helbig² says that "it illustrates a stage of artistic development in which painting had not yet learnt to distinguish fully between what is essentially pictorial, and what not. The composition is severe with a sense of archaic symmetry. At each side of the centre group the figures of Calchas and Agamemnon respond the one to the other, while in the sky above Artemis and a nymph balance each other. Overlapping of figures is as far as possible avoided, and in fact very little modification would be necessary to translate the composition into a bas-relief. . . . Possibly this picture is the product of a school of painting, which like that of Pasiteles in sculpture, had set itself to revive some of the characteristics of archaic art."

So far it has seemed possible that the sketching in of backgrounds and the general love of landscape in the Pompeian paintings may have been due in a large measure to a national talent and aptitude in Roman painters, though the absence of Greek remains and Greek records after the time of Alexander the Great

¹ Pliny, N.H., xxxv. 73. See also the other passages collected from ancient writers in Overbeck's 'Ant. Schriftquellen,' Nos. 1735-1739. In these passages the figures mentioned are Calchas looking sad, Ulysses more sad, Menelaos in a climax of sadness, and lastly Agamemnon, for whose indescribable grief the painter had no resource but to make him hide his face.

² 'Wandgemälde Campaniens,' p. 283.

must leave the question open to doubt. But when we come to the choice of mythological subjects and the manner in which they are conceived and presented to us, there is no longer any question as to the Greek origin of them. We have already referred to instances in which the originating Greek artist can be traced with next to certainty. But these definite instances are as nothing compared with the mass of subjects from Pompeii which in their general character proclaim them at once to be the product of a purely Hellenic mode of thought and a purely Hellenic tradition.

In Greek art of all ages nothing is more constant than its love of bas-relief. We do not speak only of the friezes in their temples and the numerous stelæ sculptured in marble to stand in the open air and be more or less public monuments. For the moment we are thinking rather of smaller and portable works of art which even in the wreck of the past are still legion. Designs in relief are to be found in almost every material, bronze, silver, gold, ivory, porcelain, terracotta, and much else, to which we may add the long series of engraved gems, on the ground that a gem though engraved in intaglio was primarily intended to produce an impression in relief, that is to say, a seal. The coins in gold, silver, and bronze present a variety and a number of designs in relief, almost incredible. No less extraordinary is the constant striving after beauty which has animated the artists in producing these countless examples of smaller and portable works of art with their designs executed in relief.

An artistic productiveness so astonishing even in its ruins would lead us to a conviction that the imagination of the Greeks as a nation must have habitually

envisaged its creations in the form of reliefs. And even if this conviction is not justified in its full extent, there are at least sufficient grounds for it in works of art to make us consider some of the advantages that attached to designs in relief as the Greeks understood them. First of all it was an advantage to get rid as far as possible of perspective, because what we call perspective is a weakness of human vision and not a fact of nature. Looking along an avenue of trees we see them diminishing in size at a distance, but as we advance, the trees which before had seemed small become as large as their fellows. Nor is it difficult to imagine an artistic temperament to which this illusion would be objectionable. On the contrary, such a temperament has never been rare. In the case of Greek architecture we know with what refinements it was sought to obviate the illusory effects of distance by the curvature of long horizontal lines, and the inclination of the shafts of columns. That this was a matter of principle among Greek architects we learn from Vitruvius, while the perfect results which they attained in such buildings as the Parthenon have been elaborately worked out by Mr. Penrose in his 'Principles of Athenian Architecture.'¹

But the desire to avoid perspective has also this positive gain, that in a figure subject in three planes, one behind the other, as was frequently the case in Greek reliefs, the talent of an artist was put to the utmost strain in the matter of composition. We are familiar in photography with large groups of figures arranged in extended lines of only two or three deep, so as to come

¹ First appearing in Pt. iii. of the 'Antiquities of Ionia (Dilettanti Society, 1840), and latterly (1888) in a new edition.

within the focus of the camera, which also knows no perspective. We see with what ingenuity the front line is made to sit or kneel on the ground and with what difficulty the back rows are got into positions in which they shall be visible with the prominence which is their due. That is a crude illustration of what the Greek sculptor of a bas-relief had to do. But it may serve the purpose of explaining the manner in which his ingenuity was taxed. He saw that the light fell broadly on the figures in his front plane. He knew that if those of the second or third plane were deeply recessed there would be a dark shadow over them which had no equivalent in nature, and was objectionable. He therefore strove to his utmost to bring the visible parts of the figures in the back planes as near as possible to the front so that they might receive a fair share of the light, and in doing so his talent for composition was called upon at every moment. Besides, the first instinct in the decoration of a plain surface, whether by relief or by painting, is to preserve as much as possible of the plain surface.

We have thought it necessary to make these remarks on Greek sculpture in relief at this stage of our enquiry, because in the mythological and therefore originally Greek compositions at Pompei the impression of their having been conceived as reliefs is of constant occurrence. In fact the published engravings of them look like so many reliefs. And if it be said, as it may be with truth, that these engravings omit all sense of colour and perspective yet equally it may be urged that the pictures in being translated into engravings have in a measure resumed the original character in which they were

conceived. Be it also remembered that we are driven to speculation of this sort by the utter absence of the Greek originals. We are trying to divine what they were by comparing the contemporary Greek reliefs with the Pompeian paintings which represent similar subjects. Besides, it is to be recollected that Greek reliefs were probably carried off by the Romans in greater numbers than Greek paintings, which latter in many cases could not be removed at all.

At this point we may notice those instances of mural decoration where actual reliefs are inserted in the wall side by side with painted groups. It is true that these instances are rare, but we remember one conspicuous wall from Pompeii in the Naples Museum, in which are panels with reliefs representing Hercules led by two Satyrs and Silenos between two Satyrs. But of late years we have had something like a revelation by the discovery of a series of reliefs in the Farnesina Gardens at Rome, along with the frescoes which we have already noticed. These reliefs (Fig. 126) are sketched in on the stucco of a barrel-shaped ceiling, apparently in one of the rooms where the frescoes had been. Now that these reliefs have been put together in the museum at the Baths of Diocletian in Rome, the effect is very striking.¹ It is an effect as of a richly painted Pompeian wall which had been translated into relief. Panels with landscapes, or with figure compositions having landscape backgrounds, have been modelled in the stucco with an amazing dexterity. Mixed with these are other panels representing only groups of figures composed and executed in the strictest manner of relief. The same compo-

¹ They have been lately published in the 'Mon. Ined. Supp.,' Pls. 32-36.

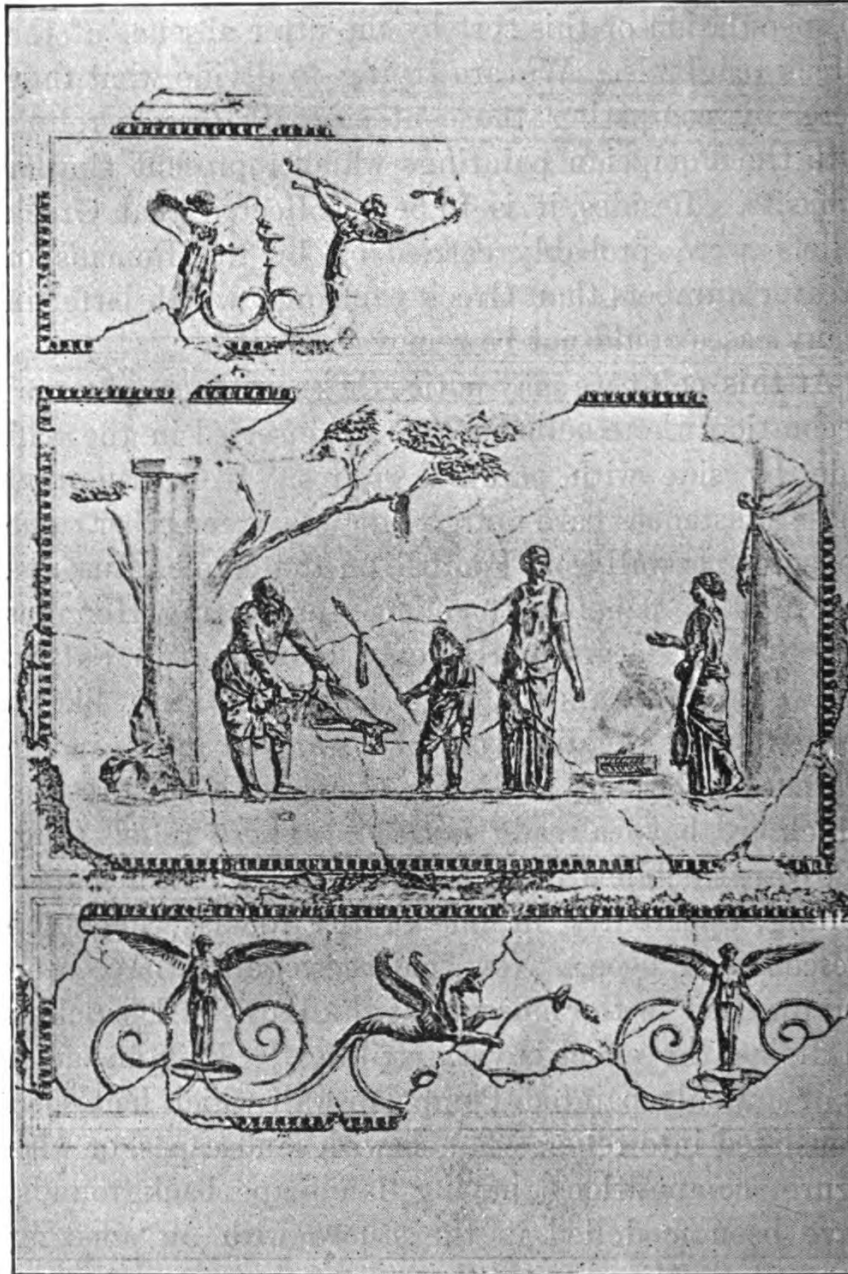


Fig. 126. Stucco Reliefs from Farnesina Gardens, Rome.

sitions are to be found in relief among existing terra-cotta panels. Equally they are to be seen often

in mural paintings, where if there were any doubt of their having been copied from actual reliefs, that doubt would now be removed on seeing them, so to speak, translated back into their original character in the Farnesina decorations. It is interesting to observe in these stucco decorations with what pictorial skill the panels intended to represent pictures with landscape backgrounds have been executed. And this is true also of the borders of arabesques with figures of animals and fantastic creations of half animal, half plant, which surround the panels and enrich the aspect of the whole. So much is this the case that it is difficult to repress a feeling that surely in this species of work also the Greeks had in their time taken a part.

But we have still to notice a series of paintings found at Pompeii, which even more obviously have been imitated from Greek reliefs. These paintings are small in number and in dimensions. Some of them have been executed in fresco and are easily distinguished in the Museum of Naples by the simplicity of the conceptions and the purely Hellenic character of the figures in type, costume, and drawing.¹ But those to which we shall here refer, have been painted on slabs of marble, the figures being drawn in

¹ See, for example, the small panels numbered in Naples Museum 9018, from the 'Casa del Chirurgo,' 9022, delicately drawn and finely composed in light colours on a white ground, from Herculaneum; 9019, 9021 and 9243, the last-mentioned representing a female figure painted in yellow against a cobalt blue, about 1½ feet high. Or compare Nos. 9302 and 9304 with representations of two tripods on which have been placed sculptured figures of the children of Niobè, her seven sons on one tripod, the seven daughters on the other; the figures painted in yellow against a red and in part against a faint green ground ('Mus. Borbon.,' vi., Pls. 13-14).

outline with red colour, reminding us of many of the white Athenian lekythi. The best known,¹ and perhaps in all respects the best, of these pictures on marble is the one which is signed by a painter who styles himself "Alexandros of Athens." In the foreground are two of the daughters of Niobè playing at knucklebones on the ground. To be able to play the game they half kneel on the ground, and this attitude of theirs gives the painter an easy and natural opportunity for bringing in the group of onlookers like a screen immediately behind the players. These onlookers are Leto, Niobè, and others of her daughters. No more complete illustration of a relief transferred to painting could be desired. We do not, of course, say that this painter had copied an actual Greek relief; more probably he had copied an older Greek painting which in its turn had been derived either from a relief or from a still older picture of a time when mural painting and sculpture in relief are known to have worked hand in hand. That there was such a time, and it the period of the greatest creative activity in Greece, there is no manner of doubt.

In concluding these observations on the paintings of Pompeii, it is only right to warn the student that in the very just and proper desire of preserving everything that has been found, many specimens have been preserved in the Museum of Naples which only illus-

¹ Helbig, 'Wandgemälde Campaniens,' No. 170 *b* ('Mus. Borbon.,' xv., Pl. 48). Under Nos. 1241, 1405 and 1464 he gives three other paintings on marble found together with No. 170 *b*. He believes all four to be copies from important Greek paintings, the conception being worthy of such an original, while the execution is frequently halting and undecided. This he notes especially as regards the group of the Niobides (170 *b*) signed ΑΛΕΞΑΝΔΡΟΣ ΑΘΗΝΑΙΟΣ ΕΓΡΑΦΕΝ.

trate the more or less depraved taste of the time when they were executed. In other classes of antiquities such productions for the most part find their own level, and are not allowed to add to the confusion of students whose purpose is to trace the progress of a particular branch of art. Still, with a little experience, the inferior paintings from Pompeii can readily be recognised and passed over. When this facility has been acquired, the pleasure is doubled with which we return to the numerous examples of a fine pictorial talent developing itself amid circumstances so different from ours, with material appliances so foreign to those of our day, and yet with artistic instincts akin to those of the great modern painters.



Fig. 127. Acropolis of Athens, restored.—Wordsworth's 'Athens.'

CHAPTER X.

ARCHITECTURE.

IN attempting to treat within very narrow limits a subject at once so wide and so special as Greek architecture, we can hardly do more than state a certain number of facts which have become a part of general knowledge, and indicate certain principles which, under other circumstances, it would be useful to pursue.

Apparently the oldest buildings of the Greeks were huts, the form of which we know, partly from certain

primitive terra-cotta urns, which have been found (Pl. I), and partly from expressions in classical literature, which go to prove that the shape of these urns was actually the shape of the houses inhabited by the primitive populations of Greece and Italy. These urns are elliptical in plan and are covered in on the top with what is an obvious imitation of the roof of a hut, formed by poles meeting on a ridge along the top, the poles serving as a framework over which to throw a covering, possibly of skins, the result being a sort of pediment at the two ends of the urn. Vitruvius (ii. 5), mentions a mud hut which still existed in his day on the Acropolis of Athens, as a "remnant of antiquity," and with it he compares the hut of Romulus preserved on the Capitol of Rome. Pausanias (x. 4, 1), speaks with some scorn of a small country town in Greece where the houses had the aspect of huts such as one saw in the mountains. This town, Panopeus, in Phocis, was evidently one of those outlying places which centuries of civilization had left untouched. In the river-bed there were still to be seen the huge lumps of clay from which Prometheus had made man! The only noticeable monument the town possessed in the time of Pausanias, was a great tumulus, doubtless not unlike the famous tombs at Mycenæ and Menidi.

From hut-shaped houses to hut-shaped temples was a natural step. In the traditions current at Delphi, about the origin of the temple to Apollo there (Pausanias, x. 5, 9), it is said that the oldest temple had been made of laurel wood brought from the vale of Tempè, and was in the form of a hut. This in time was replaced by another, which, according to the legend, was built from the wax and wings of bees. This story

of the bee-temple had been handed down in tradition, but no one gave credit to it. There seemed more sense in an alternative legend to the effect that the second temple had been built by a native of Delphi called "Pteras," which would mean "wings," and that the temple came to be named after him "the wings," as we should say.

In classical Greek the pediment of a temple was often called directly *pteroma*—"the wings." More generally it was called *aëtos*, which means an eagle—doubtless an eagle with wings spread. It seems, then,

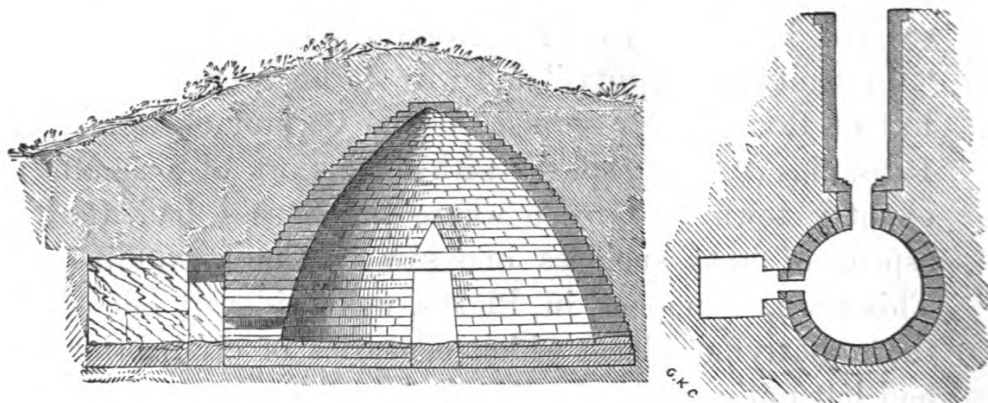


Fig. 128. Tomb of Agamemnon (?) at Mycenæ.

a reasonable conjecture that the second temple at Delphi had taken the form of a bee-hive, like those primitive buildings in Greece which we still call bee-hive chambers. Of these the best example is the so-called tomb of Agamemnon at Mycenæ, and it will be remembered that above the doorway to that tomb is a triangular space which may fairly be described as a rudimentary pediment (Fig. 128). Another interesting example is the great tomb at Menidi, near Athens. Both are approached by a long narrow cutting (dromos), which leads to the entrance. At Mycenæ the entrance

was enriched by pilasters and facing stones, on which were carved patterns of spirals, zigzags, and circles such as occur in all primitive art (Fig. 129). The tomb itself consists of two chambers, of which only the principal one into which the door leads, is vaulted,



Fig. 129. Restored pilaster of Tomb of Agamemnon (?).
Mycenæ.

producing a striking effect of gloom. The method of vaulting is not that which was employed in later times. It consists of courses of masonry gradually approaching as they rise until they meet in a keystone at the top. In the inside the stones were dressed so as to produce a fairly smooth appearance, and it is

believed that either partly or wholly the surface was originally covered with thin plates of bronze, like the legendary chamber which Poseidon made underground for Orion.¹ The outside being concealed in the rising ground, which had been excavated to make room for the building, was left in a rough state.

A similar structure was the Treasury of Minyas at Orchomenos, which Pausanias visited, and of which he says that it and the Cyclopien walls of Tiryns were as much worthy of admiration as the pyramids of Egypt. At Argos he saw a tomb which he describes as like a pyramid (i. 25, 7). And possibly the spirit which led the early Greeks to the construction of these great works, had arisen from a knowledge of the buildings of the Egyptians. At all events it is certain that the "Treasury" which Dr. Schliemann opened at Orchomenos, disclosed a piece of decoration which seems to be a direct copy from an Egyptian original.

There being no doubt now that these great vaulted underground buildings were tombs, and not treasuries, a question arises whether they were older or more recent than the graves found by Dr. Schliemann within the Acropolis of Mycenæ. These graves were disposed in a group within a large circle of stone slabs set upright (see Fig. 7), suggesting a comparison with the tomb of Alyattes, near Sardes, which Herodotus (i. 93) describes as consisting of a stone base (*κρηπίς*) above which was a mound of earth. The date of that tomb was towards the end of the 7th cent. B.C. There is no trace of the antiquities which must once have been found in the vaulted tomb of Agamemnon at Mycenæ, but on comparing those which were obtained from the similarly vaulted tomb at

Apollodorus, 1, 4, 1, 5, *ἡφαιστότευκτον ὑπὸ γῆν οἶκον.*

Menidi, with the antiquities from the graves within the circle at Mycenæ, we find them identical in character. It is possible, therefore, that the system of constructing tombs within a stone circle with simply a great mound of earth above, was not much later than the vaulted tombs which were built within an excavation made into the side of a hill or rising ground. Possibly also this system had continued down into the 7th cent. B.C.

Speaking of the wall of Tiryns, Pausanias (ii. 25, 7), says that it had been the work of the legendary Cyclopes, the smallest of the blocks being more than a yoke of mules could move; and again in mentioning the lion gateway to the acropolis of Mycenæ, he says that it was the work of the Cyclopes who made the wall of Tiryns. This and the references of Greek poets have caused the name Cyclopedian to attach to all masonry of this gigantic and rude kind.

It is one of the singular features in the history of Greek architecture, as Semper has pointed out,¹ that those vaulted chambers which in the early period had been employed for subterranean buildings were in the culminating stage of classical architecture raised to the tops of buildings, and thus furnished the principle on which were constructed the gigantic domes of the Pantheon in Rome, and later the dome of Sta. Sophia in Constantinople. The principle had not been altogether dormant between these two extremes of time. It was to be found in certain round buildings called *tholi*, and apparently it had been employed on a larger scale in buildings of the Alexandrian age. But generally, we may say, that during the great classical period of Greece, the domes disappear. Their place

¹ 'Der Stil,' ii., p. 394.

was taken by the Greek temple, as we know it from the many examples which have survived, some of them from a date as early as the end of the 7th cent. B.C.

In its oldest known form the Greek temple consisted of an oblong cella to contain the image of the deity, and having a roof which was supported by a row of columns all round the outside of the cella, whence it was called *peripteros*. It is supposed that in the first stages, the roof with its peristyle of supporting columns was independent of the cella, and thus expressed more clearly than in later stages, where it is intimately connected with the cella, the idea of an overspreading covering for the sacred shrine.¹

Or again it has been suggested that the oldest temples were probably of sun-dried brick, and that an overhanging roof supported by columns was necessary against the rain. But, by whatever steps and under whatever influences, from Egypt or elsewhere, this change was brought about from primitive vaulted buildings with no external appearance, to the oblong temple with its sloping roof, supported by outside columns, it is obvious that from this time forward, beauty of external aspect must have become a governing ambition among Greek architects. Hence the beautiful variety of details in Greek temples, which yet never disturbs the original conception. We do not mean for example that the different orders, Doric, Ionic, Corinthian, arose amid a competition of architects to invent something new and beautiful. On the contrary these orders were developed at different periods and in different parts of the Greek world. But in each case they embody a desire to enrich, as we have said, the external aspect of the temple, and

¹ Semper, 'Der Stil,' ii., p. 408.

in particular to attain the greatest possible beauty in what was the principal feature of a temple, its external columns.

The oldest Greek temples that have survived, are built entirely of stone. It is stated, however, by Pausanias (v. 16, 1), that one of the two columns in the opisthodomos of the temple of Hera at Olympia was of wood in his time, and it has been inferred that the columns all round this temple, together with the roof, had been originally constructed of wood, which was subsequently superseded by stone.¹ It has frequently been argued that this must have been the process of development in all Greek temples, and undoubtedly there are features in them all which seem to have been copied from constructions in wood. In the Lycian tombs down to a comparatively late period, we see how an original construction in wood with the ends of joists projecting at the sides, was exactly copied in stone. But without denying the influence of construction in wood in the oldest Greek temples, we must remember that the early Greeks did not live in an isolated world of their own, in which they were obliged to work out for themselves every step of their progress. They had access to the older civilisation of Egypt, as is now shown by the fact that the same class of antiquities which is found in connection with the dome-shaped tombs of Greece, has been of late found also in Egypt, thus proving an intercourse between the two peoples at a time immediately anterior to the invention of the Greek temple with its surrounding columns. So that the idea of stone columns and stone roofs may, from the beginning,

¹ Doerpfeld, 'Aufsätze zum 70 Geburtstag Ernest Curtius' (1884), p. 148.

have been known to the Greeks from the temples of Egypt.

If the Greeks made a new and brilliant use of this knowledge, as they undoubtedly did, we should conclude that they had been of themselves in search of some new and more suitable construction, for which the example of the Egyptians supplied them with a practical starting-point. In this search they very probably made experiments in wood, and may in fact have been aware that the Egyptians also occasionally used columns of wood in the early period. There is now in the British Museum part of a wooden column in the shape of a prism with eight faces and a wooden capital, which might be called proto-Ionic. These were excavated by Mr. Flinders Petrie at Kahun, in Egypt, 1890, and belong to the xiith dynasty. Among several varieties of stone colonnettes which Mr. Petrie found on this spot, and which also are now in the British Museum, there is one which differs in an important point from the so-called proto-Doric colonnettes in the façades of tombs at Beni-Hassan. While the latter want an echinus to connect the square abacus on the top with the shaft of the column, Mr. Petrie's specimen has what may be called a proto-echinus. The abacus is joined to the shaft by means of what, seen from the two sides, is a distinct echinus, while seen from the front and back it presents a plain vertical surface, flush with the abacus. The shaft is a prism of eight faces.

In a Greek temple the distinctive feature, as we have said, was its outer row of columns or peristyle. In a Greek dwelling-house the equally remarkable characteristic was its interior row of columns forming a peristyle round an open court, on to which abutted

outside rooms used for domestic purposes. That this peristyle round an open court was a principal feature in a Greek house of the classical age, may be gathered from a comparison of the ruins of a Greek house, found of late years at the Piræus (Fig. 130), with such passages of Greek literature as that in which Plato¹ describes the visit of Socrates to the house of Callias, along with Hippocrates, who had previously called on Socrates in his own domicile. So also in the houses of Pompeii, which may be taken as types of the Greek

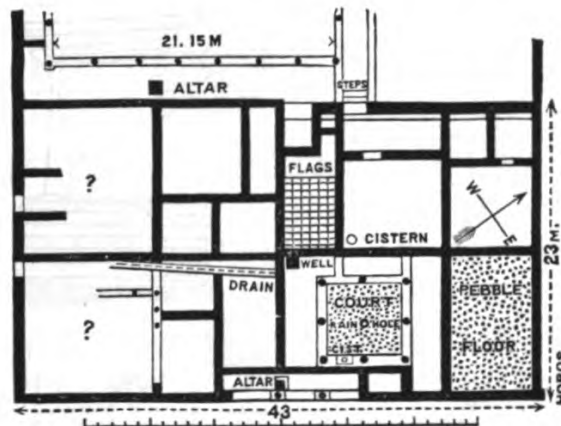


Fig. 130. A Greek house at the Piræus.

house after the time of Alexander the Great, the constant feature is the inner peristyle round an open court (Fig. 131).

It has been pointed out² that if we compare this type of house of the classical age with the ruins of an extensive palace discovered by Dr. Schliemann at Tiryns, we shall find there also an open court on to which abut rooms provided with porticos.³ It

¹ 'Protagoras,' 14-15.

² Oscar Bie, 'Jahrbuch des Arch. Inst.,' 1891, p. 2.

³ For plans and descriptions of these houses, see new edition of Smith's 'Dictionary of Greek and Roman Antiquities,' s.v. *Domus*.

is supposed that the next step of progress was to connect these porticos into a continuous peristyle, and this being done, that element of the Greek house

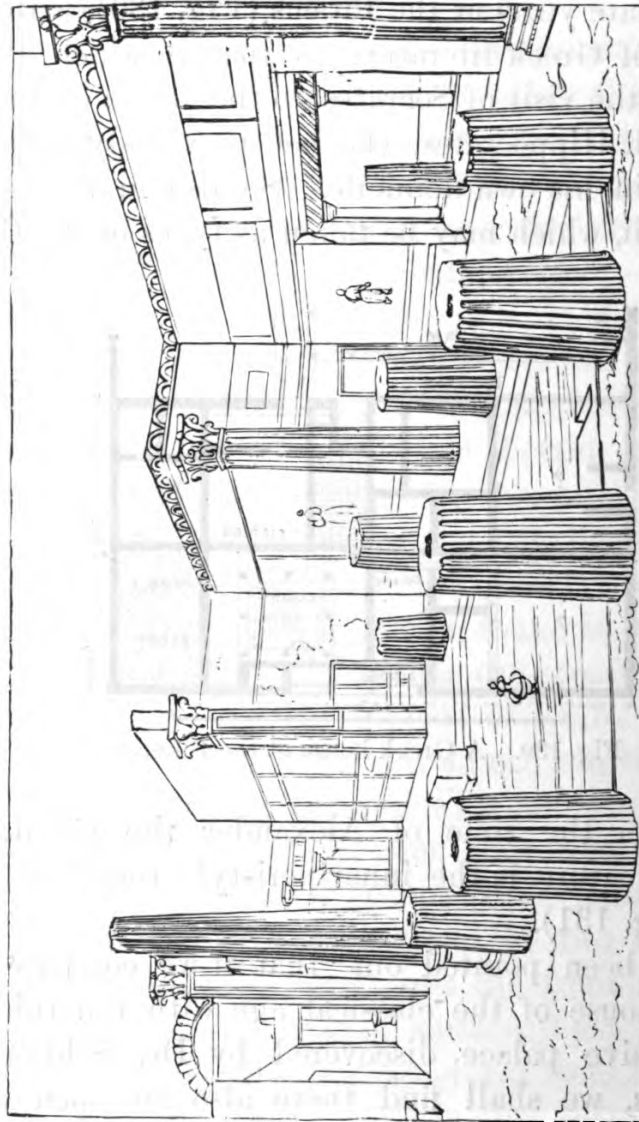


Fig. 131. Atrium of the House of the Quæstor.

which remained its chief characteristic to the end, was at once established. Possibly the idea of constructing small houses with façades in the shape of porticos had

been obtained from Egypt, where the tombs cut into the cliffs at Beni-Hassan, still furnish examples of this construction. But the further idea of grouping small buildings with porticos round a square inner court seems to have been as much an invention of the Greeks themselves as was the peristyle of columns round the outside of their temples. As regards the date of the house or palace at Tiryns, the fragments of painting in stucco from its walls (e.g. the bull, Fig. 115), show that it must have been nearly contemporary with the vaulted tombs of Mycenæ and Menidi.

The fact that external appearances were at no time of any consideration in the houses of the Greeks, rendered domestic architecture a mere matter of routine. The first object was to obtain comfort in the interior, and the second a rich decoration of the interior. It would thus have been easy for a passer-by to regard as mean and poor a house which was in fact richly decorated within. The finest of the houses in Pompeii could be properly so described from the outside. Even the houses of Sardes, which in the time of the rich and art-loving King Crœsos, were, according to Herodotus (v. 101), mostly of reeds or of stone, with thatched roofs, may have contained much that was beautiful and decorative. Still there can be little doubt that the vast majority of the Greek houses, even in the most prosperous age, were poor within and without. Socrates is quoted (*Memorabilia*, iii. 8, 10) as having objected to pictures in a house, because they drive away more pleasure than they bring.

In towns the streets were so narrow as to forbid external display. At most an upper storey or a verandah was allowed to project a little, as in the accompanying

illustration of a Pompeian house (Fig. 132). It is said that when a door was hung so as to open out into the street in Athens, a tax was imposed on that luxury, in the time of the Tyrant Hippias.¹ But the new papyrus of Aristotle's 'Politeia' (c. 50), shows that the tax referred to windows (*θυρίδες*) and not doors (*θύραι*).² With a projecting verandah, windows which opened

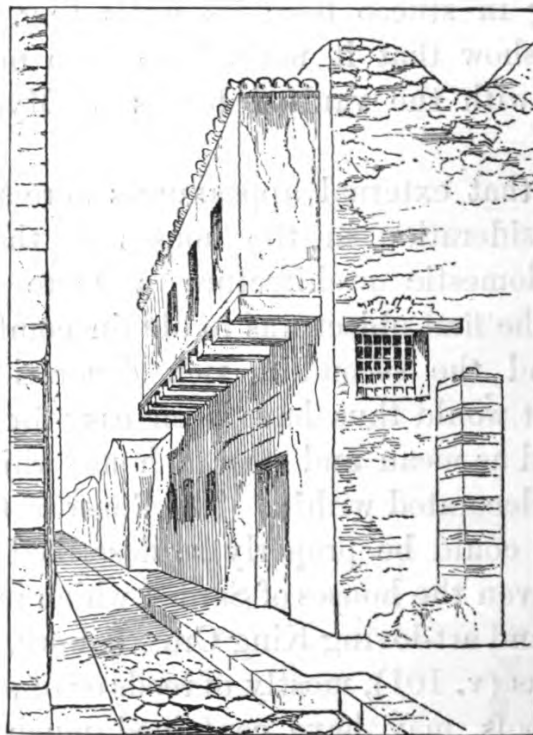


Fig. 132. House in Pompeii. From Overbeck.

outwards would be a great inconvenience for the rest of the street. In either case we see the constraints that were imposed on external display in the form of domestic architecture.

¹ Aristotle, 'Æcon.,' ii. 4, states this, using the word *θύρας*, as does also Plutarch, 'Poplic.,' 20.

² J. van Leeuwen in 'Mnemosyne,' 1891, p. 178.

It is then to the temples and other public buildings that we must look for illustrations of the Greek genius for architecture in its high sense. They alone gave opportunities for external display; not indeed display as modern nations with greater aptitude for it have understood that word, but display within narrow and fixed limits. Temple architecture began with the Doric in all its simplicity (Figs. 133, 134). It advanced

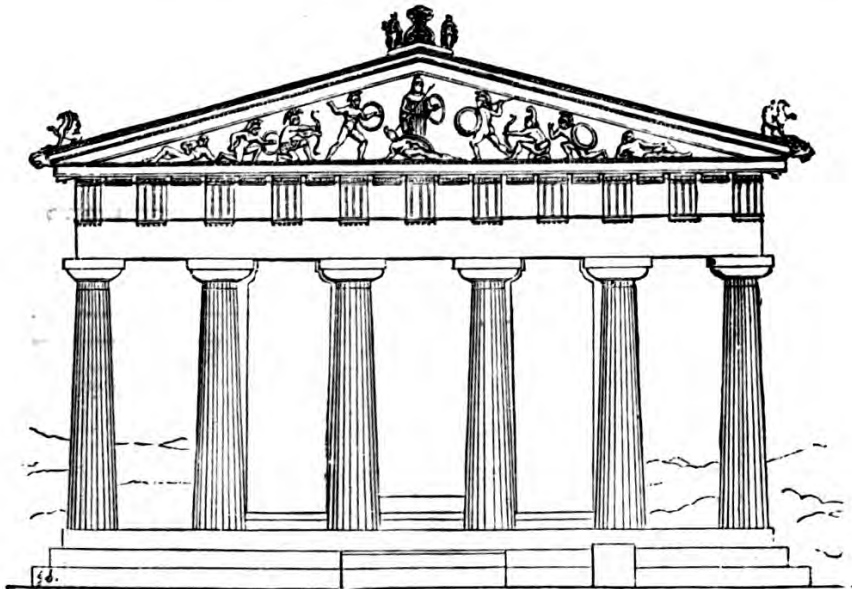


Fig. 133. Doric Temple of Ægina.

to the Ionic (Fig. 135) with its pervading gracefulness; and the greatest extravagance it ever reached was the Corinthian (Figs. 136, 137), with its florid capitals and rich decoration. These were the three orders into which the Greeks classified their temples. By the name of "Doric" they indicated a belief that this order had been created by the race of Dorians who, according to tradition, had swept down in early times from the north of Greece, possessing

themselves of the Peloponnesus, and sending out a

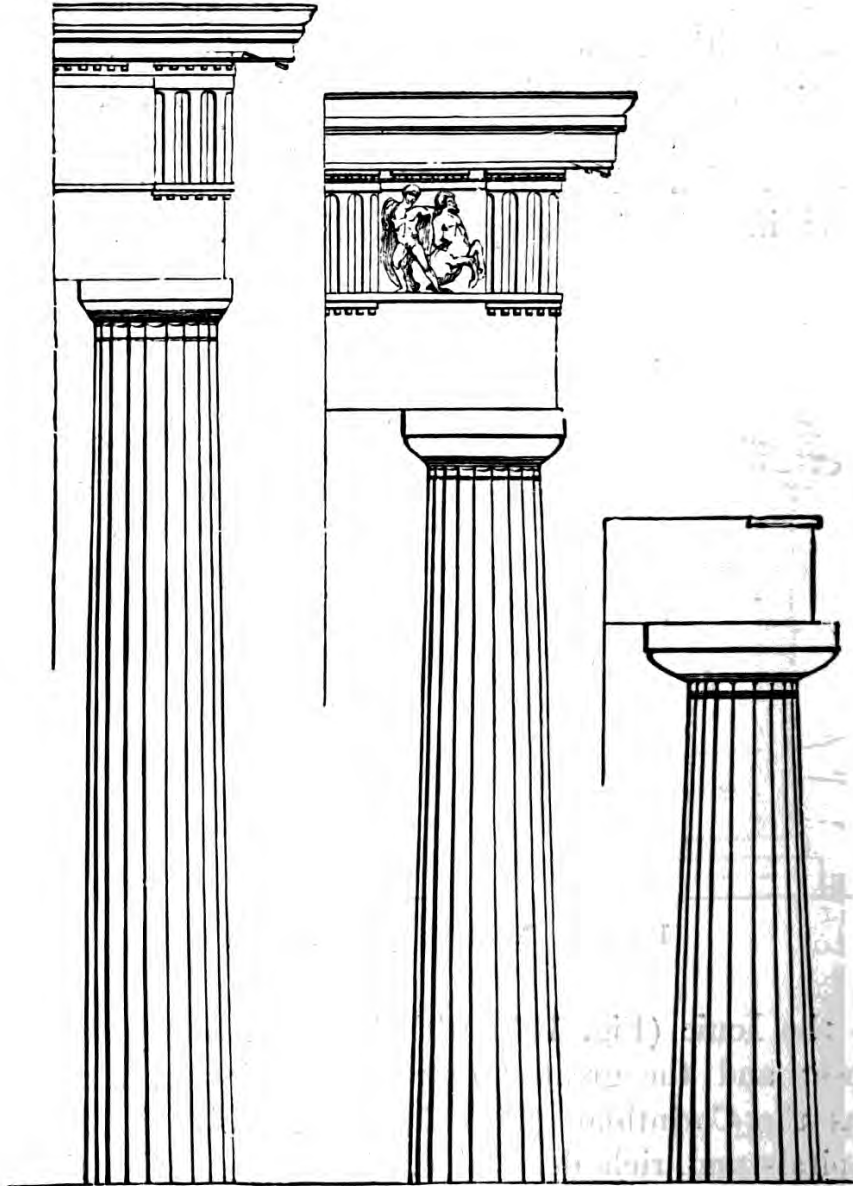


Fig. 134. Doric columns with entablatures, Delos, Athens, Corinth. (Fergusson's Handbook.)

number of colonies. The term "Ionic" conveys the fact that this order had been developed among the

Greek settlers in Ionia on the west coast of Asia

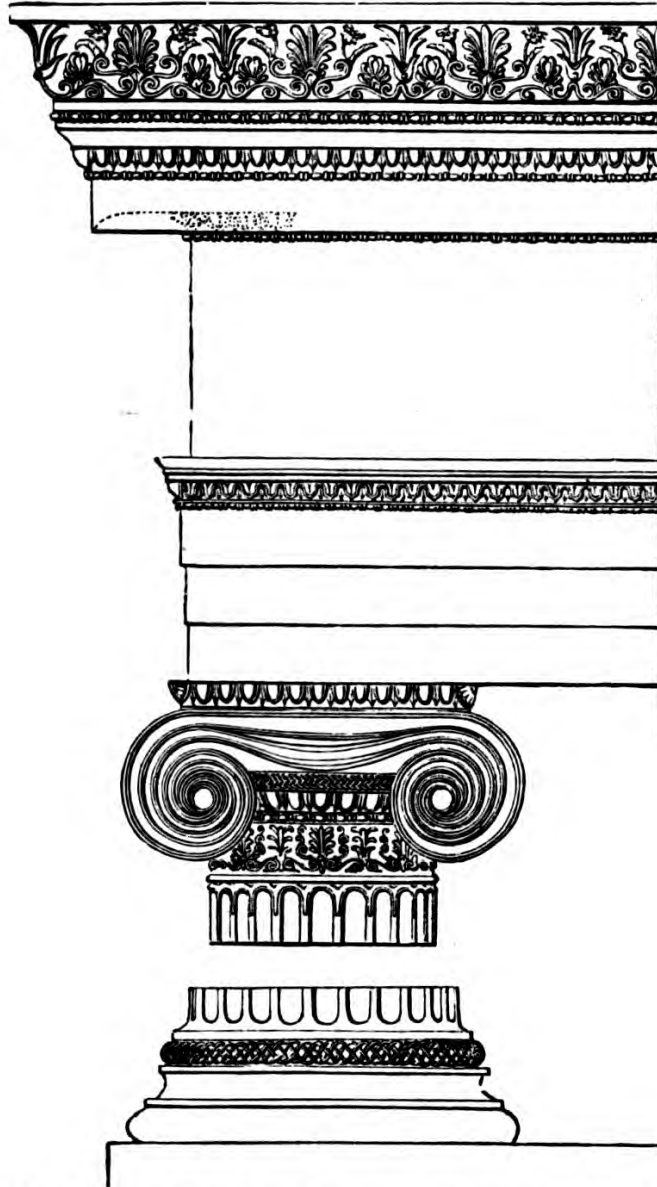


Fig. 135. Ionic order of Erechtheum. Base, capital, architrave, frieze, and cornice.

Minor, and amid the influences of the Assyrian and Persian empires. The "Corinthian," so far at least as

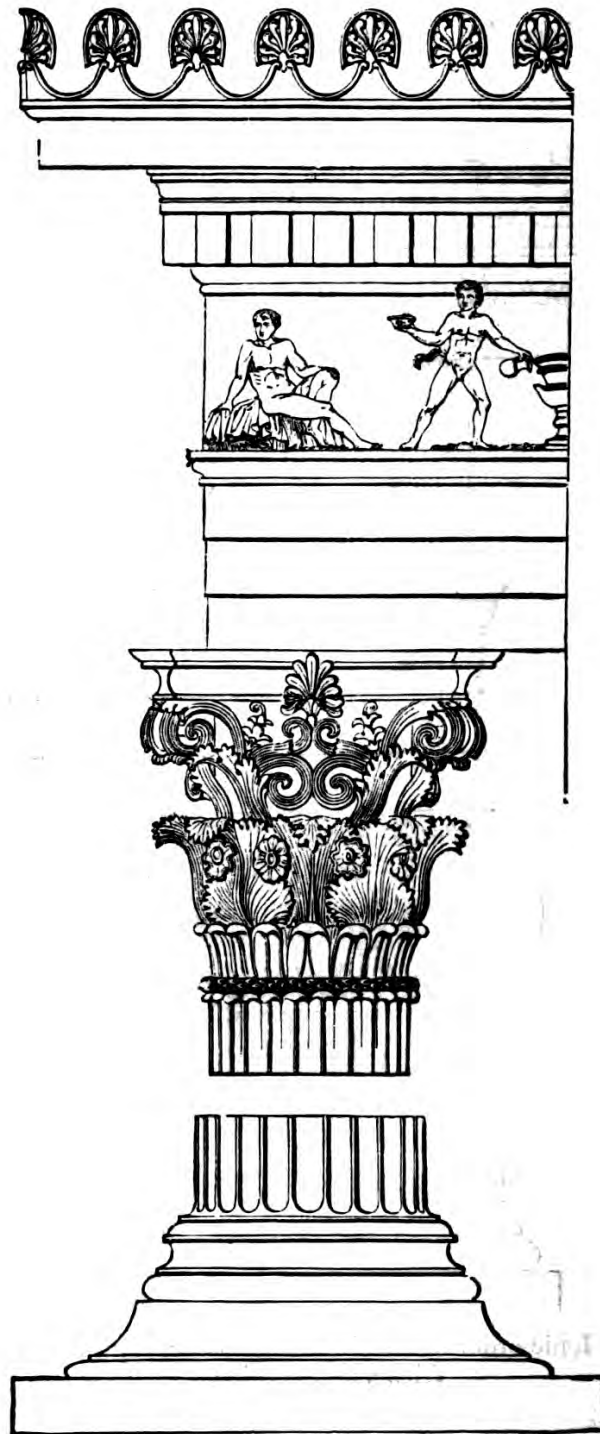


Fig. 136. Corinthian order : monument of Lysicrates, Athens.

the capitals of the columns are concerned, was said to have been an invention of comparatively recent times, due to the sculptor Callimachos, to whom also is attributed the first use of a marble drill, adapted to deep undercutting in marble. Without such a drill the deeply-cut design of a Corinthian capital could not well have been executed, and Callimachos may at least claim the credit of having perfected this order.

The names of these three orders indicate principally differences in the outer columns. The Doric column had in common with the others a fluted shaft. But it was characterised by the absence of a base and by the form of its capital, which consists of a rounded cushion (echinus), resting on the top of the shaft, and a square slab abacus (above the echinus), these two parts of the capital being carved out of one block of stone. A row of massive columns, *without bases*, and appearing to rise out of the foundations of the temple, conveys a vivid impression of the enormous weight which they have to sustain. The shaft tapering upwards, (entasis), helps to emphasize this sense of burden, to which also the flutings seem to contribute. The usual number of flutes was twenty. The amount of entasis varied at different dates from about $\frac{2}{3}$ to $\frac{4}{5}$ of the diameter at the base, the oldest examples showing as a rule the greatest tapering. Similarly the height of the columns changed with the times from four diameters, as in the short heavy columns of the temple at Corinth, which is the oldest in Greece, to six diameters as in later specimens.

Another feature which helps to indicate the date of a temple is the shape of the echinus, with the varying degrees of beauty which it presents in the profile. The wonderful instinct of the Greeks for delicate and subtle

curves, as seen in their mouldings, asserts itself very finely in the history of the echinus, when we trace it from the earliest, almost tentative, examples on to the exquisite profile of the echinus of the Parthenon.

The columns support a heavy entablature, consisting of, first, the architrave, next the metopes, i.e. a series of sunk panels (metopes), which may or may not be filled with sculpture, alternating with triglyphs, i.e. square blocks grooved vertically with three V-shaped cuttings, and lastly the cornice. In what is called the cymatium of the cornice, we have again a curve, which, in the best temples, is of extraordinary beauty, and indeed is always attractive. Its ancient name cymatium implies that it was held to resemble a long wave as it begins to break on the shore. The comparison was singularly appropriate. The front and end of the temple rose each in a triangular form called the pediment—which primarily served to conceal the ends of the sloping roof—ultimately pediments were enriched with sculptures, forming a large and connected composition. The cornice followed the sky-line of the pediments, acting as a sort of crown; the architrave consists of plain flat bands or fascias. It is an exception to find it sculptured as in the archaic Doric temple at Assos in the Troad (Fig. 62).

In the Ionic order the columns became taller and more graceful. The abruptness with which the Doric column seemed to rise out of the stylobate, was in the Ionic concealed by a base consisting of two members—the upper member usually swells outwards and is fluted horizontally, as if in mimicry of the strong vertical flutings of the shaft, while the lower member is characterised by very deep and powerful horizontal flutings. Occasionally there is beneath this base a

plain square plinth. But the striking feature of the Ionic is its capital, with its volutes on the front and back. It has been sought to prove from the oldest existing specimens of this capital—such as those found of late years in Athens—that its origin must be traced to Persia or Assyria, and in particular to carving in wood in these countries. It would seem as if the idea of the volutes could only have been conceived first of all in wood. But Egypt, which has furnished in Mr. Flinders Petrie's excavation the wooden capital which we have already described as possibly proto-Ionic, may well have had her share in suggesting this beautiful invention of the Greeks in Ionia. Beneath the capital the necking of the column is finely enriched in the Erechtheum at Athens, and in other temples, with the floral pattern known as the anthemion or honeysuckle. The base also admitted of varieties of enrichment such as the interlacing pattern in the Erechtheum. The entablature, supported by the columns, differed from the Doric in this, that the place of the Doric metopes and triglyphs was taken by the frieze or long flat band generally enriched with sculpture in relief. This was the main difference. The cornice and pediments were more or less the same architecturally, and always retained the same love of exquisite mouldings, in which bright light plays with an effect which is always enchanting.

The Corinthian order represents a still greater departure in the direction of slightness and gracefulness (Figs. 136, 137). So that Vitruvius (iv. 6-9) probably expresses a general opinion of the ancients when he compares the three orders to three human types; the thick-set Doric to a man, the rich Ionic to a matron, and the slender, graceful Corinthian to a

girl. This comparison seems to have been associated in his mind with the story he had heard as to the origin of the Corinthian capital. A Corinthian girl

had died and been buried with a pillar placed over the grave. Her old nurse had gathered a basket of flowers and placed it on the top of the pillar where an acanthus had already taken root. With the spring the leaves of the acanthus shot out and encircled the basket of flowers. The sculptor Callimachos, in passing by, was struck with the effect, and used it in his invention of the Corinthian capital. However that may be, it need not be doubted that it was Callimachos who gave its final form to the Corinthian capital.

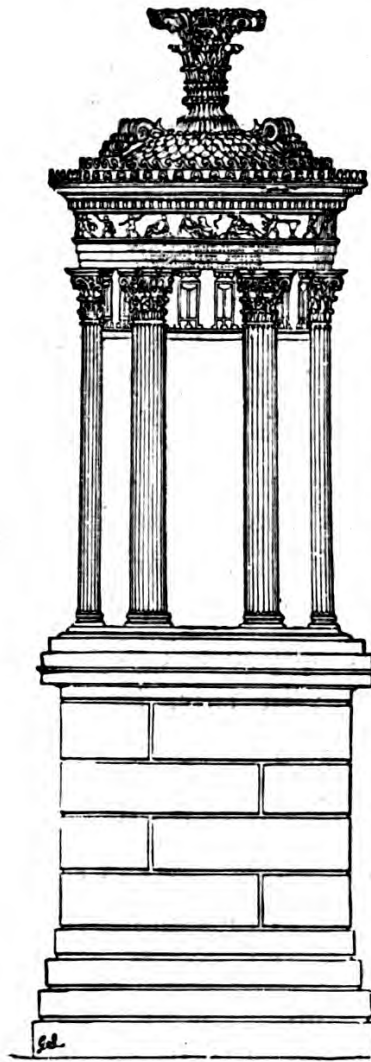


Fig. 137. Monument of Lysicrates, Athens. (Fergusson's Handbook.)

When we pass from the actual forms of the columns to the varying manner of disposing them round a temple and especially when we look for some historical order in the changes that present themselves in the arrangement of the columns, we

are met at the outset with a difference of opinion. So far it is agreed that the original idea of a temple had been merely a square or oblong building

with a door at one end. According to an ancient and common modern opinion the next step was to produce a slight portico in front of the door by continuing the side walls forward in the form called *antæ* and placing two columns between those projecting *antæ* to assist in carrying the roof (*templum*

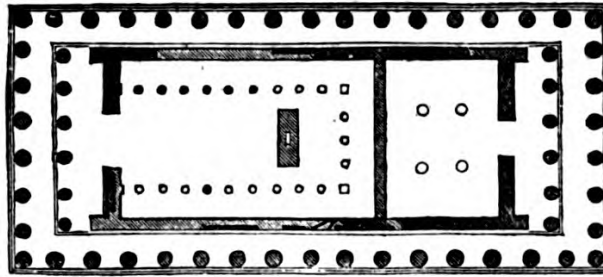


Fig. 138. Plan of Parthenon.

in antis). Semper, on the other hand, was convinced that the first employment of columns was to make a colonnade entirely surrounding the cella, so as to support the roof independently of any aid from the cella; that is to say, the first great step was to produce a peripteral temple. Certainly almost all Doric temples are peripteral and the Doric was the oldest order. We have no historical data for the introduction of *Prostyle* (with columns only on the front) or *Amphiprostyle* temples (with columns on front and back, but not on the flanks, e.g. the Ionic temple of Athenè Nikè or wingless victory in Athens). But we may be certain that *Dipteral* temples (with a double row of columns all round) and still more *Pseudodipteral* temples where the columns

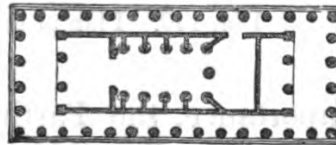


Fig. 139. Plan of temple of Apollo at Bassæ.

or rather semi-columns were connected by walls, as in the immense temple of Zeus at Agrigentum (Fig. 140), were of a comparatively late origin. These are the various designations of temples according as the columns were arranged, viz.: Peripteral, in Antis, Prostyle, Amphiprostyle, Dipteral and Pseudodipteral.

Another manner of designating a temple was according to the number of columns on the front. Most of the Doric temples had six columns in front, and were called *Hexastyle*, though the first of them in

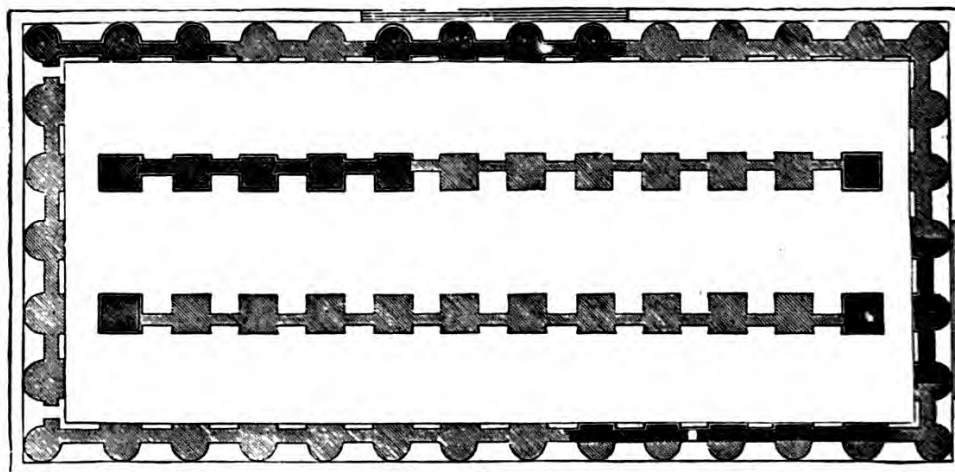


Fig. 140. Plan of great temple of Zeus at Agrigentum.

importance, the Parthenon, was *Octastyle*. The other forms were *Tetrastyle*, *Decastyle* and *Dodecastyle*. The number of columns on the flanks may vary. The front of a peripteral temple is commonly called the *Portico*, and the back the *Posticum*. In large temples where support for the roof was required in the interior, this was obtained by two rows of columns which separated the cella into a sort of nave with an aisle at each side. A double row of columns, one above the other, was sometimes necessary. These inner rows of

columns could be of a different order from those of the outer peristyle, and might even differ among themselves, as in the great temple of Athena at Tegea, which Pausanias mentions as combining all three orders, a statement which can best be explained by assuming that there had been in the interior a double row of columns, one above the other, and that these two rows had been of different orders.

On the subject of Hypæthral roofs in Greek temples there is much scope for diversity of opinion and very little definite evidence, the roofs themselves having disappeared. But in very large temples, such as that of Zeus at Olympia, both literary testimony and actual remains agree in showing that it had been hypæthral. As regards the Parthenon some doubt has been raised by the ingenious suggestion of Mr. Fergusson that it had been lighted by a sort of clere-storey. Nevertheless the older view that it had been hypæthral, that is, open to the sky in the centre of the roof, still holds its ground. Vitruvius says that hypæthral roofs were rare, as indeed is easily intelligible considering that the advantage of light would be more than counterbalanced by the damage done by rain.

The interior of a temple with an open roof would have resembled the open court with peristyle, to which we have referred as the main feature of a Greek dwelling-house, and so far would have commended itself to Greek tastes, whenever it was practicable, as in large temples, to sacrifice the central part of the interior and to allow the rain to come down on it. The statue of the deity could be protected by a curtain, as it was at Olympia and at Ephesus, possibly also in the Parthenon. Besides, it

was the aisles and the opisthodomos which were used for the storage of valuable articles belonging to the temple or the state, and these parts of the building were in any case safe from the weather. The opisthodomos where it existed at all was behind the cella (naos), and corresponded to the anteroom or pronaos at the front, with this difference, that the pronaos was always an open part of the building, whereas the opisthodomos might be closed and converted into a chamber for the storage of valuables.

According to Pausanias (v. 10, 3), Euergos of Naxos (not his son Byges) was the first to make roofs of marble in place of the older roofs consisting of tiles of terra-cotta. This happened during the reign of Alyattes in Lydia, in the 7th cent. B.C. But the use of terra-cotta tiles was not thereupon discontinued. It lasted some time later, as we see from the many remains of richly-coloured terra-cotta antefixa of roof-tiles found at Olympia, Selinus in Sicily, Capua and elsewhere. Terra-cotta was especially suitable for smaller buildings like the Treasuries at Olympia, and when in very early times these buildings consisted partly of wood and partly of sun-dried brick, the richly-coloured terra-cotta on the cornices would tell with effect.

The highest form of decoration for a temple was sculpture, particularly so in the Doric, with its severe and simple lines, which invited the contrast of a manifold play of surface and light, such as sculpture supplies. The two triangular pediments became a field for dignified groups of statues executed in the round and forming a united composition with its central point of interest coinciding with the central and highest point of the pediment. In earlier

stages, the designs had been executed in relief on the back or tympanum of the pediment; but the final development was what we have just described. The figures on the acroteria or highest points of the pediments were also sculptured in the round and stood out against the light. The metopes exposed to the broad light were sculptured in very high relief, while the frieze within the colonnade, as in the Parthenon and Theseum, was in low relief. We are speaking of Doric temples. In the Ionic, where the frieze was external, the sculpture was in what may be called high relief, considering its narrow dimensions.

Among exceptional instances of the use of sculpture we have the columns of the temple of Diana at Ephesus, which, both in the archaic building of the time of Cræsos and the later building of the time of Alexander the Great, were sculptured, at least round the lowermost drum. Probably it was only the rows of columns on the front and back that were so enriched. On the older of these two temples the spaces of the cornice between the lions' heads which were employed to carry the rain from the roof, were sculptured in low delicate relief. Then in the huge temple of Zeus at Agrigentum rows of gigantic figures (called Atlantes

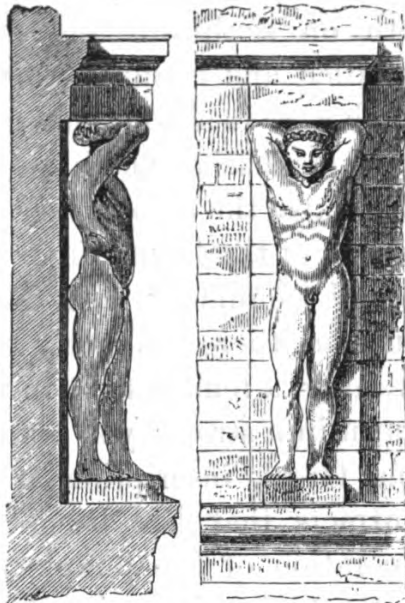


Fig. 141. Telamon. Temple of Zeus at Agrigentum.

or Telamones) were employed to give an appearance of supporting the roof from the interior (Fig. 141), while again in the Erechtheum at Athens we have the porch of six Caryatids actually supporting a slight roof. It is probable that in these instances, and in the use of sculpture generally on temples, the Greeks had derived an impulse and many suggestions from Egypt.

The use of colour, which in early times was profuse both on sculpture and architecture, was gradually curtailed and confined to those parts of the building which were in shadow and needed bright patterns, such as the lacunaria or ceilings of colonnades and porticoes, where also the colours were protected against weather. On one of the lacunaria or coffers of the ceiling of the Nereid monument from Xanthos, now in the British Museum, there has lately been found, after a process of cleaning, a female face, in three quarters to the front, drawn in a strong yet refined outline. So also in the long Greek inscription at Epidauros, setting out the contracts that had been made for the building and decoration of the temple of Asclepios there, we find contracts for the painted decorations of the ceiling.¹ On the exposed external parts of the temple they could not last. Besides, on these parts carved designs with their play of light and shade told best. Frequently when a temple was built of limestone the columns were coated with a fine white plaster, which gave them the appearance of marble, if not indeed of ivory. Remains of this stucco are frequent on the temples of Sicily and elsewhere.

¹ Baunack, 'Aus Epidauros,' 1890. Line 59: ἔγκασιω τοῦ ὑποδοκίου καὶ κυματίου. Line 77: Καλύμματα ἄνευ προσώπων γράψαι καὶ κυμάτια καὶ ἀστραγάλους.

The question of the proportions of Greek temples and the curvature of the lines, opens a field of the most interesting study which we can here only mention with the remark that Mr. Penrose, in his 'Principles of Athenian Architecture,' goes fully into the subject.

We must pass on to a class of buildings which closely resembled temples. The cynic Diogenes when he met the shade of Mausolos in the lower world asked him why he held his head so high; to which the Prince of Caria replied with various reasons, but chiefly because he had a tomb on earth as grand as a temple to a god. This was the famous Mausoleum at Halicarnassos, the remains of which are now in the British Museum. A similar rival to a temple in form and aspect was the monument erected at Xanthos in Lycia, and called generally the Nereid monument, the remains of which also may be studied in the British Museum. It was a feature in both of these buildings that they did not require any means of access to the cella or colonnade. On the contrary it was advisable that this idea of inaccessibility should be strongly expressed. Hence they were raised on lofty basements and became truly monuments. Both are Ionic; but the Nereid monument has this marked and beautiful feature that the statues of Nereids moving rapidly, as if over the sea, which are placed between the columns, seem to supply the place of those living figures which with ordinary access might have been seen moving about among the columns. On the Mausoleum there may also have been figures between the columns.

The vast multitude of rock-cut tombs in Lycia having façades imitated from temples shows how generally in that district at least the temple had

become a model for the tomb. But in Greece also, where a simple sculptured stelè or tombstone mostly takes the place of a constructed tomb, we find that a very constant design is that of the front of a small temple with two columns between which are figures taking farewell. Though not works of architecture in themselves they yet illustrate that art.

Among the public buildings of a secular kind which have survived in a measure in Greece, the theatres are conspicuous, as at Athens, Argos, Epidaurus, Ephesus, and elsewhere. But in general it may be said that, excepting the seats of the spectators, which were not perhaps of much account from an architectural point of view, the theatres had been so much altered under Roman influence as to become nearly useless for the purpose of illustrating what the Greek theatre was like in the best classical age. And that is just what it is so desirable to learn. It is disputed whether there was or was not a stage for the actors. Those who deny that there was a stage point to the absence of remains of one. But it is possible that in a Greek theatre, which was only occasionally used for the production of plays, not daily as with us, the stage may have always been a temporary and movable structure of wood. The traditions of the people would favour such a temporary arrangement.

This brief outline is but an indication of what is worthy of study in the temple and domestic architecture of the Greeks. To pursue the matter further the student must turn to books in which ancient buildings are drawn as they now stand or are reconstructed from their ruins with the greatest professional skill. From among many books of this class we select the following :—

- Stuart (James), 'Antiquities of Athens.' First edition, vol. i. (1762), vol. ii. (1787), vol. iii. (1794), vol. iv. (1816). A new edition, prepared by W. Kinnard was published, vols. i., ii. in 1825, vol. iii. in 1827, and vol. iv. in 1830, the last consisting of supplements by Cockerell, Donaldson, and others.
- Cockerell (C. R.), 'Temples at Ægina and Bassæ,' 1860.
- Boetticher (K.), 'Tektonik der Hellenen,' new edition 1874-1881.
- Semper (G.), 'Der Stil in den technischen und tektonischen Künsten,' vols. i., ii., 1860 and 1863.
- Bohn (R.), 'Propylæen der Akropolis zu Athen,' 1882.
- Puchstein (O.), 'Das Ionische Capitell,' 1887.
- Fergusson (James), 'Parthenon,' 1883.
- Inwood (W.), 'The Erechtheum at Athens,' 1827.
- Hittorf and Zanth, 'Mon. de Ségeste et de Sélinonte,' 1870.
- Dilettanti Society, 'Antiquities of Ionia,' parts i.-iv., 1769, 1799, 1840, 1881. 'Unedited Antiquities of Attica,' 1817.
- Serradifalco (Faso Pietrasanta), 'Antichità della Sicilia,' 5 vols., 1832-42.

INDEX.

- ACHILLES, shield of, 183
Achilles and Penthesilea, 139
Acropolis of Athens, archaic statues, 249
Ægina, temple of, 457; sculptures of, 260; vase of, 102
Æthiopian, bronze head of, 292
Æthiopians, in army of Xerxes, 146
Agamemnon, tomb of, at Mycenæ, 446, 447
Agatharchos, 374
Agrigutum, temple of Zeus, plan, 466; Telamones, 469
Ahmes, queen of, 52
Akesas, 59
Alcæus, description of sword, 51; description of house, 52
Alcamenes, 281
Alcibiades, 74, 374
Alcmena vase, 105; Alcmena of Zeuxis, 376
Alexander the Great, portraits of, 290; portraits by Apelles, 383
Alexandros of Athens, 442
Alyattes, 19; tumulus of, 54, 448
Amasis, King of Egypt, 49, 75, 76
Amasis I., vase painter, 93
Amasis II., vase painter, 99
Ameinocles, 40
Amendola sarcophagus, 296
Andokides, 99
Antenor, 93, 97; statue by, 254; tyrannicides by, 255
Antidotos, 391
Apelles, 381 fol.
Apes, 342
Aphroditè Anadyomenè of Apelles, 385
Apollodoros, 373
Apollonides, 163
Apoxyomenos, 288
Apulian vases, 106
Aquatic animals and plants on primitive pottery, 27
Archaic statues of Acropolis of Athens, 249; statuette in British Museum, 263
Archermos, victory of, 247
Archicles, 93
Architecture, 444
Ardea, pictures at, 349
Argonauts, pictures of, by Micon, in temple of Dioscuri, 370
Ariadnè, chorus of, 184; found asleep by Dionysos, 430
Aridikes, 349
Arimnes, 123
Aristeides, 389, 390

- Aristippos, 162
 Aristocles, stelè of, 198
 Aristogeiton and Harmodios, 255
 Aristolaos, 391
 Aristonidas, 295
 Aristonofos vase, 39
 Aristophanes, passage on vase painter, 66
 Arkesilaos of Cyrenè, 79
 Artemis Persikè, 329
 Asia Minor, Greeks of, 82
 Assos, temple of, 192; reliefs, 193
 Assteas, 99
 Assyria, influence of, 174
 Astartè, 340
 Astragalizusæ, group of, in terra-cotta, 318
 Atalanta, 140
 Athenè, Gorgon-slayer, 148; Parthenos, 156; bronze relief, 189; two reliefs of, 190; peplos of, 210; two figures of, 231; Promachos, statuette, 263
 Athenian lekythi, 103
 Athenion, 391
 Athenis, 249
 Athlete, bronze statue, 305

 BABYLONIAN standard, 356
 Balawat, gate of, 179
 Basilica of Pompeii, 417, 418
 Bassæ (Phigaleia), plan of temple, 465; sculptures, 218
 Bathycles, 188
 Bellerophon, 81
 ——— and Chimæra, 337
 Bin tepè, 54
 Boreas, 66
 Bosphorus, bridge of, 360
 Boxer, bronze statue, 304
 Bronze weapons, Ialysos, 31; dagger, inlaid, Mycenæ, 51; incised designs, 117; cuirass, 122; disc—athlete, 123; Aphrodite and Pan, 124; head, Athens, 262; leg, 278
 Brunn's theory, 91
 Brygos, 99, 100
 Byzes, 328
 Bularchos, picture by, 358
 Bull, on primitive gem, 46; of Tiryns, 352
 Bupalos, 249
 Burgon lebes, 37, 58, 64
 Butades, 328, 332, 348

 CACHRYLION, vase painter, 98, 99
 Cære, vases of, 85; paintings, 350
 Calamis, 342
 Callimachos, 368
 Callimachos, sculptor, 464
 Calumny, picture by Apelles, 382
 Camel, 353
 Cameos, 159, 161
 Camiros vases, 59; geometric patterns, 59; incised style, 62; pinax, 78; terra-cottas, 319
 Candaules, 358
 Capua, terra-cottas of, 329
 Carians, inventors of armour, 47; in Lemnos, 48; mercenaries, 51
 Caryatids, 250, 277, 470
 Casa del Fauno, 413, 417, 418; del Questore, 413; di Salustio, 413, 414, 417, 418
 Catagusa, 321
 Centaur, by Zeuxis, 377
 Cervetri (Cære), sarcophagus, 331
 Cestrum, use of, 394
 Chalcidian swords, 53; vases, 84
 Chares, 92

- Charis, 190
 Charon, 66
 Chelis, 99
 Chimæra (?), on primitive gem, 43, 337
 Chrestographia, 391
 Cimon of Cleonæ, 97
 ——— and Pero, 427
 Cistæ, 119, 134 fol.
 Citharist, 87
 Clazomenæ paintings, 356
 Cleanthes, 349
 Clitias, 93, 97
 Collectors of gems, ancient, 167
 Colossus, 244
 Colours on sculpture, 191; on terra-cottas, 321
 Columns, sculptured, 202, 469
 Corinthian potters, emigration of, to Etruria, 16; vases, 83; bronzes, 118; order, 460, 463
 Coroplastæ, 314
 Costume on gems, 49; on vases, 112
 Craton of Sikyon, 349
 Crete, early sculpture of, 184; bronze shields of, 185
 Cresos, columns of, at Ephesus, 202
 Cronios, 163
 Cuttle-fish, on pottery, 27
 Cyprus, seat of Phœnician influence, 25; terra-cottas of, 343
 Cyrenè, 79, 81; terra-cottas of, 312
- DÆDALOS, 184; and Icaros, 426
 Damophilos, 329, 332
 Daphnæ, vases of, 81
 Darius, bridge of Bosphorus, 359
 Death, Personification of, 66
 Delphi, oldest temples at, 445
- Delta of Egypt, Greek settlements, 82, 86
 Demaratos, father of Tarquin, 332
 Democracy and Demos, picture, 393
 Demos, picture of, by Parrhasios, 381
 Dexamenos, 155
 Diadumenos, 276; terra-cotta, 322
 Dio Chrysostom, 2
 Diomede, head of, 299
 Dionysios, 366, 374
 Dionysos finding Ariadnè asleep, 430
 Diopos, 332
 Dioscuri, temple at Athens, 369
 Dioscurides, 164
 Dipylon vases, 32 fol., 58
 Dodona, bronzes of, 289
 Dolon and Odysseus, 105
 Dome-shaped buildings, 449
 Dorian conquest, 22
 Doric temples, 457, 462
 Dorics, gem of, 152
 Duris, vase painter, 98, 99
- ECHETLOS, 368
 Ecphantos, 349
 Egypt, influence of, 174
 Egyptian influence on Greek architecture, 448, 451, 452
 Elpinikè, 367
 Encaustic painting, process of, 394 fol.
 Endymion, 428
 Ephesus, archaic sculptured columns, 202
 Epictetos, vase painter, 96, 97, 99
 Epidauros, inscription of, 72; temple at, contracts for building, 470

- Epidius Rufus, house of, 420
 Epilycos, vase painter, 99
 Erechtheum, order of, 459
 Ergotimos, vase painter, 93, 97
 Eros in literature and art, 110, 127
 Esquiline frescos, 404
 Etruria, tombs of, 54, 55; introduction of writing, 55; bronze mirrors, 121, 129; bronze cistæ, 134
 Etruscan antiquities, 56; pottery, 85; terra-cottas, 330, 333, urns, 335
 Eucheir, 332
 Euenor, 94, 379
 Euergos of Naxos, 328
 Eugrammos, 332
 Eumares, 93, 97
 Euphorbos, 78
 Euphranor, 391, 392
 Euphronios, 94, 95, 98; kylix by, 371
 Eupompos, 389, 391
 Euthymides, vase painter, 99
 Euxenidas, 389
 Euxitheos, vase painter, 99
 Exekias, vase painter, 93

 FARNESINA, frescoes of, 404, 406
 Fates, 272
 Fibulæ, bronze, from Thebes, 38; 113
 Ficoroni cista, 135
 Flint, used for knives, 9

 GAMEDES, vase painter, 92
 Garden scene, fresco, Prima Porta, 412
 Gauls, 296
 Gems, engraved, earliest, 40 fol.; later, 149 fol.; Etruscan, 148
 Gem engravers' names, 165, 170
 Germanicus, house of, 404, 407
 Ghiberti, 181
 Giant, 196
 Gilding on bronze, 307
 Girdle, silver, from Cyprus, 187
 Gitiadas, 188
 Glass ornaments from Ialysos, 21, 26; vases, 17; imitations of, in pottery, 18, 19, 21
 Glaucon, 95
 Glaukos of Chios, 244
 Glaukytes, vase painter, 93
 Gold vases, Mycenæ, 24
 Gorgasos, 329, 332
 Gorgon, 148, 338; head, 328, 335
 Graces of Bupalos, 249
 Gyges, 19

 HARMODIOS and Aristogeiton, 255
 Harpy tomb, 203
 Hawara paintings, 397
 Hector, burial of, 8, 78
 Helena of Zeuxis, 375
 Helicon, 59
 Hellenistic age, 323, 436
 Hemera and Kephalos, 335
 Hephæstos, clay figure of, 317
 Heræum of Samos, 360
 Heracleides, 391
 Heracles and Nereus, on primitive gem, 44; 193, 196; and Echidna, 197; head of, 341; strangling serpents, 376; in Lindos, picture of Parrhasios, 380
 Hermes of Praxiteles, 279; Criophoros, 341; by Parrhasios, 380
 Hiero, helmet of, 123
 Hieron, vase painter, 28
 Hipparchos, 96, 254

- Hippopotamus-goddess, 50
 Hischylos, vase painter, 99
 "Homeric" vases, 109
 Horses, pictures of, 384
 Houses, dwelling, of the Greeks,
 452; at Sardes, 455
 Hut-shaped temples, 445
 Huts, vases in form of, 445
 Hyakinthos, 154
 Hypæthral roofs, 467
- IALYSOS, ivory statuette, 30;
 bronze weapons, 31; pottery,
 17; glass, 18, 21, 26; form of
 tombs, 53
 Ialysos, picture by Protogenes, 388
 Ilissos, 271, 274
 Io and Argos, picture on Pala-
 tine, 408, 431
 Ionian mercenaries, 51
 Ionic temples, 459, 462
 Iphigeneia, sacrifice of, 390, 434
 Ivory statuette, Ialysos, 30;
 nymph at fountain, 396
- JULIUS CÆSAR, 164
 Julia, daughter of Augustus, fron-
 tispiece and pl. xiii.
- KEPHALOS, 335
 Keramikos, 68
 Kimon, 367
 Knidos, Aphroditè of, 283; Deme-
 ter of, 285
 Κύαρος, 21
 Kylix, Argive, 29
 Kypselos, chest of, 185; 332
- LAIA of Cyzicus, 402
 Lanuvium paintings, 350
 Laocœon, 296
 Leagros, 95, 99
- Lekythi, Athenian, 66, 103, 364,
 405
 Leschè, 361
 Leto (?) on primitive gem, 45
 Lions, confronted, 37
 Ludius, painter, 425
 Lycia, rock-cut tombs, 471
 Lysicrates' monument, order of,
 460; the monument itself, 464
 Lysippos, 287
- MANDROCLES, 359
 Marathon, battle, picture, 368;
 warrior of, 198
 Marble xoanon, 9
 Marion, statue from, 246
 Marriage, picture of, in temple of
 Dioscuri, 370
 Masks of terra-cotta, 338
 Mau, systems of decoration at
 Pompeii, 414
 Mausoleum, frieze of, 221; 471
 Medusa, 148; 429
 Megara, treasury of, at Olympia,
 199
 Meidias, vase painter, 99, 100
 Melos, terra-cottas of, 337
 Memnon, (pet name), 99
 Menaidas, vase painter, 92
 Menelaos, 78; and Paris, 136
 Menidi, form of tombs, 53; 446
 Micon, 367, 368, 370
 Mikkiades, 247
 Milonidas, vase painter, 92
 Miltiades, 96; 368
 Minos, ring of, 371
 Moulds for terra-cottas, 318, 319
 Mourner, statue of, 284
 Mycenæ tombs, view of, 20; in-
 laid dagger, 51; form of tombs,
 53; lion gateway, 178, 191,
 449; paintings, 351, 353

- Myrina, terra-cottas, 311
 Myron, 274, 281; discobolus, 153

 NASONES, tomb of, frescoes from, 408
 Naucratis, 15; pottery, 56, 60, 69, 75
 Nautilus on primitive pottery, 28
 Nearchos, 93
 Negroes, 342
 Neoptolemos, 362
 Nereid monument at Xanthos, 470, 471
 Nereus and Heracles, 193, 196
 Nicomachos, painter, 391
 Nicophanes, painter, 391
 Nicosthenes, vase painter, 93
 Nikè of Pæonios, 264
 Nikias, 391; 431
 Niobè and her daughters, 442
 Nucera, battle in Pompeii, 427

 OBSIDIAN used for knives, 9
 Odysseus and Dolon, 105; visit to the shades, 362, 404; picture by Parrhasios, 380; wanderings of, 404
 Oecopheles, vase painter, 93
 Enoè, battle of, 367, 369
 Olto, vase painter, 99
 Olympia, sculptures of, 205; 263, 266; athlete's head, 293; athlete's foot, 294
 Olympos, Mt., 270
 Onatas, 260
 Orchomenos, treasury of, 448
 Orestes, bones of, 48
 Oriental animals on vases, 59; fabrics, influence of, 64
 Ostraka, 71
 Ostrich eggs, 56, 159

 PÆONIOS, Nikè of, 264
 Painting, 348; Assyrian influence, 354; Egyptian influence, 355; encaustic, 388; on box-wood, 389; Pompeii, 403; on marble, 442
 Pamphilos, 382, 389, 391
 Pan and Aphroditè on disc, 124; on fresco, 126
 Panænos, 367, 368, 371
 Panathenaic amphoræ, 104; frieze, 208
 Pandora (Nesidora), 95, 365
 Panopeus, tumulus at, 53, 445
 Panphaeos, hydria of, 89, 99
 Paramythia, bronzes of, 289
 Paris and Menelaos, 136; judgment of, 141
 Parrhasios, 378
 Parthenon, frieze of, 208, 212, 266; metopes, 215; pediments, 283; plan of, 465
 Pasiteles, sculptures by, 301
 Pataikoi, 342
 Patroclos, burial of, 8
 Pausias, 391, 392
 Pauson, 366
 Pediments, poros, Athens, 195; composition of, 198
 Pegasus, on primitive gems, 44; birth of, 200
 Peisistratos, 259
 Pelops, sceptre of, 53
 Penthesilea and Achilles, 139
 Peplos of Athenè, 210
 Pergamon School, 297
 Pericles, 225
 Pero and Cimon, 427
 Perseus and Medusa, 129, 200, 338; and Andromeda, 429, 43
 Personifications, on vases, 111; of cliffs, etc., 430

- Perspective in reliefs, 437
 Pet names (Lieblingsnamen), 95
 Phaleron vases, 36 fol. ; 61
 Phanes, vase of, 75
 Pheidias, his work on the Parthenon, 209, 225, 267, 281
 Phigaleia, frieze of, 217; plan of temple, 465
 Philocles, the Egyptian, 96, 355
 Philoctetes, by Parrhasios, 380
 Phœnician influence on Mycenæ antiquities, 25; Phœnicians bringing tribute, 21; intermediaries, 25; traders at Argos, 24
 Phrygia, 359
 Phrygians, tombs of, 53
 Pictures in houses, objected to by Socrates, 455
 Pinakes (tablets), 67
 Piræus, plan of house at, 453
 Pistozenos, vase painter, 99
 Polemarchos vase, 69
 Polledrara tomb, 56; bust, 241
 Polycleitos, 274
 Polycrates, seal of, 49
 Polycrates, 177
 Polygnotos, vase painter, 99; painter of frescoes, 102; 360 fol; pictures at Delphi, 362; style, 366, 368, 372, 391; pictures at Athens, 368, 370
 Polyphemos, 39; and Galatea, picture on Palatine, 408
 Pompeii, terra-cottas of, 333; construction of houses, 413; paintings, 403
 Porcelain vase of Thothmes III., 17
 Poros pediments, archaic, Athens, 195
 Portraits, 383
 Poseidon, bronze of, 290
 Praxiteles, 279-283
 Prima Porta, fresco, garden scene, 412
 Primitive vases, 6
 Prize vases, 67, 104
 Prometheus, on primitive gem, 44, 143; name for a potter, 313; picture of, by Parrhasios, 380
 Protogenes, 386
 Psammetichos I., scarab of, 15, 56; his Greek mercenaries, 24
 Pyrgoteles, 162
 Pythagoras, 149

 QUÆSTOR, house of, Pompeii, 454

 RELIEFS, 174; principles of relief, 206, 436; in bronze, 227-234; influence of, in Pompeian paintings, 441; of stucco, 439; among paintings, 439
 Rhodes, pottery of, 59, 60, 61
 Rhœcos of Samos, 243
 Roofs, materials of, 468
 Rosettes of glass and on pottery, 26, 63; revival of, 4

 SAMOS, painting, 360
 Sarcophagus of Cervetri, 331; of Camiros, 356; of Clazomena, 356
 Sardes, tombs near, 54
 Sardinia, terra-cottas of, 343
 Sargon, 185
 Sarpedon, burial of, 8, 66
 Saurias of Samos, 349, 358
 Scaraboids, 48
 Scarabs, 48, 148
 Scopas, 283, 285
 Scythians in Palestine, 52

- Seal of Polycrates, 49; of Augustus, 162
 Sealing doors, 161
 Selenè, 272; visiting Endymion, 428
 Selinus, metopes of, 199
 Semon, gem of, 150
 Shalmaneser II., 180
 Shipbuilding, earliest, 40
 Ships on Dipylon vases, 39
 Sicanos, vase painter, 99
 Sicily, terra-cottas of, 326
 Silanion, 295
 Silenus with infant Dionysos, 429
 Silphium, 79
 Simonides, 362
 Sirens, 341
 Siris, bronzes of, 232
 Skiron, 335
 Skythes, vase painter, 93
 Sleep, personification of, 66
 Socrates, painter, 391
 ———, compared to a Silenos, 316; objects to pictures in houses, 455
 Sosias, vase painter, 99
 Sphinx, vase in form of, 103
 Spinario, 300
 Spurius Masor, house of, 423
 Statuary, 239 fol.
 Stoa Basileios, 335, 393; Poekilè, 367, 371
 Stucco reliers, Farnesina gardens, 439
 Styles of architecture, 465
 TANAGRA, terra-cottas of, 310, 323, 344
 Tarentum, moulds of terra-cottas, 318
 Telephanes, painter, 349
 Temples, oldest Greek form, 450; Assos, 192; hut-shaped, 445
 Terra-cottas, 310; mould of, 318; common life, 345; false, 345; masks, 338; used for roofs and cornices, 468
 Theatres, 472
 Theocritos, 426
 Theodoros of Samos, 49, 243
 Theozotos, vase painter, 92
 Thersites, 139
 Theseum, pictures of, 370
 Theseus, costume of, 115; of Parthenon, 269, 274; and Skiron, 335; bringing ring of Minos up from sea, 371
 Thothmes III., porcelain vase of, 17
 Thoueris, 50
 Thyphethides, vase painter, 99
 Timagoras, vase painter, 93
 Timanthes, 389, 390
 Timonidas, vase painter, 92
 Timomachos, 391
 Tiryns paintings, 351; bull, 352; walls of, 449
 Tityos, tomb of, 53
 Toys, terra-cotta, 344
 Trimalchio, 118, 237
 Troy captured, painting in Leschè, 362
 Turrianus, 330
 Typhon, 197
 Tyrants, 57
 ULYSSES passing the sirens, 426
 VAPHIO, tomb of, 53
 Vases, primitive, 6; primitive, with incised patterns, 10; primitive, with painted patterns, 12; primitive, black ware, 14; from

- Polledrara tomb, 15; of Mycenæ type, 16; Lydian, from near Sardes, 18; from India, imitating glass ware, 19; Dipylon, 32 fol.; geometric, 32; Phaleron, 36 fol.; from Bœotia, 37; Aristonofos, 39; use of, 65; with sacrifice, 70; shapes of, 72; Apulian, 106; moulded, 108; black ware, 108; Samian, 108; subjects on, 109; personifications on, 111; with reliefs, 334; comparison with frescoes, 432; of gold, Mycenæ, 24
- Vaulted tombs, 53, 446
- Veii, quadriga of, 330
- Venus of Milo, 283
- Verandahs to houses, 456
- Vetulonia, tomb of warrior, 55
- Victory, sculptures of temple, 220; slaying ox, 227; of Archermos, 247
- Vitruvius, criticism of painting, 410
- XANTHIPPOS, ostrakon of, 71
- Xenophantos, vase painter, 99
- Xenotimos, vase painter, 99
- Xoana, marble, 9
- ZEPHYROS, 66
- Zeus slaying Typhon, 197
- Zeus, temple of, at Olympia, 205
- Zeuxis, 366; 374 fol.



2

LONDON :
PRINTED BY WILLIAM CLOWES AND SONS, LIMITED,
STAMFORD STREET AND CHARING CROSS.

ALBEMARLE STREET, LONDON

March, 1892.

MR. MURRAY'S
GENERAL LIST OF WORKS.

- ALBERT MEMORIAL. A Descriptive and Illustrated Account of the National Monument at Kensington. Illustrated by numerous Engravings. By DOYNE C. BELL. With 24 Plates. Folio. 12l. 12s.
- HANDBOOK. 16mo. 1s.; Illustrated, 2s. 6d.
- ABBOTT (REV. J.). Memoirs of a Church of England Missionary in the North American Colonies. Post 8vo. 2s.
- ABERCROMBIE (JOHN). Enquiries concerning the Intellectual Powers and the Investigation of Truth. Fcap. 8vo. 3s. 6d.
- ACLAND (REV. C.). Manners and Customs of India. Post 8vo. 2s.
- ACWORTH (W. M.). The Railways of England. With 56 Illustrations. 8vo. 14s.
- The Railways of Scotland. Map. Crown 8vo. 5s.
- The Railways and the Trader. The Railway Rates Question in Theory and Practice. Crown 8vo. 6s., or *Popular Edit.* 1s.
- ÆSOP'S FABLES. A New Version. By REV. THOMAS JAMES. With 100 Woodcuts, by TENNIEL and WOLFE. Post 8vo. 2s. 6d.
- AGRICULTURAL (ROYAL) JOURNAL.
- AINGER (A. C.). Latin Grammar. [See ETOW.]
- An English-Latin Gradus, or Verse Dictionary. On a New Plan, with carefully Selected Epithets and Synonyms. Intended to Simplify the Composition of Latin Verses. Crown 8vo. (450 pp.) 9s.
- ALICE (PRINCESS); GRAND DUCHESS OF HESSE. Letters to H. M. THE QUEEN. With a Memoir by H. R. H. Princess Christian. Portrait. Crown 8vo. 7s. 6d., or Original Edition, 12s.
- AMBER-WITCH (THE). A most interesting Trial for Witchcraft. Translated by LADY DUFF GORDON. Post 8vo. 2s.
- AMERICA (THE RAILWAYS OF). Their Construction, Development, Management, and Appliances. By Various Writers. With an Introduction by T. M. COOLEY. With 200 Illustrations. Large 8vo. 31s. 6d.
- [See BATES, NADAILLAC, RUMBOLD.]
- APOCRYPHA: With a Commentary Explanatory and Critical. By Dr. Salmon, Prof. Fuller, Archdeacon Farrar, Archdeacon Gifford, Canon Rawlinson, Dr. Edersheim, Rev. J. H. Lupton, Rev. C. J. Ball. Edited by HENRY WACE, D. D. 2 vols. Medium 8vo. 50s.
- ARGYLL (DUKE OF). Utility of Nature. 8vo. 12s.
- Reign of Law. Crown 8vo. 5s.
- ARISTOTLE. [See GROTE.]
- ARTHUR'S (LITTLE) History of England. By LADY CALLCOTT. *New Edition, continued to 1878.* With Woodcuts. Fcap. 8vo. 1s. 6d.
- HISTORY OF FRANCE, from the Earliest Times to the Fall of the Second Empire. With Woodcuts. Fcap. 8vo. 2s. 6d.
- AUSTIN (JOHN). GENERAL JURISPRUDENCE; or, The Philosophy of Positive Law. Edited by ROBERT CAMPBELL. 2 Vols. 8vo. 32s.
- STUDENT'S EDITION, compiled from the above work, by ROBERT CAMPBELL. Post 8vo. 12s.
- Analysis of. By GORDON CAMPBELL. Post 8vo. 6s.
- AUSTRALIA. [See LUMHOLTZ.]

- BABER (E. C.).** Travels in W. China. Maps. Royal 8vo. 5s.
- BAINES (THOMAS).** Greenhouse and Stove Plants, Flowering and Fine-Leaved. Palms, Ferns, and Lycopodiums. With full details of the Propagation and Cultivation. 8vo. 8s. 6d.
- BALDWIN BROWN (PROF G.).** The Fine Arts. With Illustrations. Crown 8vo. 3s. 6d. (University Extension Series.)
- BARKLEY (H. C.).** Five Years among the Bulgarians and Turks between the Danube and the Black Sea. Post 8vo. 10s. 6d.
- Bulgaria Before the War. Post 8vo. 10s. 6d.
- My Boyhood. Woodcuts. Post 8vo. 6s.
- Studies in the Art of Rat-catching. A Manual for Schools. Post 8vo. 3s. 6d.
- Ride through Asia Minor and Armenia. With Sketches of the Character, Manners, and Customs of both the Mussulman and Christian Inhabitants. Crown 8vo. 10s. 6d.
- BARROW (JOHN).** Life of Sir Francis Drake. Post 8vo. 2s.
- BATES (H. W.).** Records of a Naturalist on the Amazons during Eleven Years' Adventure and Travel. Illustrations. Post 8vo. 7s. 6d.
- BATTLE ABBEY ROLL.** [See CLEVELAND.]
- BEACONSFIELD'S (LORD)** Letters, and "Correspondence with his Sister," 1830—1852. Portrait. Crown 8vo. 2s.
- BEATRICE, H.R.H. PRINCESS.** Adventures in the Life of Count George Albert of Erbach. A True Story. Translated from the German. Portraits and Woodcuts. Crown 8vo. 10s. 6d.
- BECKETT (SIR EDMUND).** "Should the Revised New Testament be Authorised?" Post 8vo. 6s.
- BELL (DOYNE C.).** Notices of the Historic Persons buried in the Chapel of the Tower of London. Illustrations. Crown 8vo. 14s.
- BENJAMIN'S Persia & the Persians.** Illustrations. 8vo. 24s.
- BENSON (ARCHBISHOP).** The Cathedral; its necessary place in the Life and Work of the Church. Post 8vo. 6s.
- BERKELEY (HASTINGS).** Wealth and Welfare: Crown 8vo. 6s.
- Japanese Letters; Eastern Impressions of Western Men and Manners, as contained in the Correspondence of Tokiware and Yahiri. Post 8vo. 6s.
- BERTRAM (JAS. G.).** Harvest of the Sea: an Account of British Food Fishes, Fisheries and Fisher Folk. Illustrations. Post 8vo. 9s.
- BIBLE COMMENTARY. EXPLANATORY AND CRITICAL.** With a REVISION of the TRANSLATION. By BISHOPS and CLERGY of the ANGLICAN CHURCH. Edited by Canon F. C. COOK, M.A.
- THE OLD TESTAMENT. 6 VOLS. Medium 8vo. 6l. 15s.
- | | |
|--------------------------------|---------------------------------|
| Vol. I. } GENESIS—DEUTERONOMY. | Vol. IV. } JOB—SONG OF SOLOMON. |
| 30s. | 24s. |
| Vol. II. } JOSHUA—KINGS. | Vol. V. 20s. ISAIAH—JEREMIAH. |
| 20s. | |
| Vol. III. } KINGS II.—ESTHER. | Vol. VI. } EZEKIEL—MALACHI. |
| 16s. | 25s. |
- THE NEW TESTAMENT. 4 VOLS. Medium 8vo. 4l. 14s.
- | | |
|---|--------------------------------|
| Vol. I. } ST. MATTHEW—ST. LUKE. | Vol. III. } ROMANS—PHILEMON. |
| 18s. | 28s. |
| Vol. II. } ST. JOHN—ACTS OF THE APOSTLES. | Vol. IV. } HEBREWS—REVELATION. |
| 20s. | 28s. |
- THE APOCRYPHA. By Various Writers. Edited by HENRY WACE, D.D. 2 vols. Medium 8vo. 50s.
- THE STUDENT'S EDITION. Abridged and Edited by REV. J. M. FULLER, M.A. 6 Vols. Crown 8vo. 7s. 6d. ea. h.
- OLD TESTAMENT. 4 VOLS. NEW TESTAMENT. 2 VOLS.

- BIGG-WITHER (T. P.).** Pioneering in South Brazil; Three Years of Forest and Prairie Life in the Province of Parana. Illustrations. 2 vols. Crown 8vo. 24s.
- BIRD (ISABELLA).** Hawaiian Archipelago; or Six Months among the Palm Groves, Coral Reefs, and Volcanoes of the Sandwich Islands. Illustrations. Crown 8vo. 7s. 6d.
- A Lady's Life in the Rocky Mountains. Illustrations. Post 8vo. 7s. 6d.
- The Golden Chersonese and the Way Thither. Illustrations. Post 8vo. 14s.
- Unbeaten Tracks in Japan: Including Visits to the Aborigines of Yezo and the Shrines of Nikko and Isé. Illustrations. Crown 8vo. 7s. 6d.
- Journeys in Persia and Kurdistan: with a Summer in the Upper Karun Region, and a Visit to the Nestorian Rayahs. Maps and 36 illustrations. 2 vols. Crown 8vo. 24s.
- BLACKIE (C.).** Geographical Etymology; or, Dictionary of Place Names. Third Edition. Crown 8vo. 7s.
- BLUNT (REV. J. J.).** Undesigned Coincidences in the Writings of the Old and New Testaments, an Argument of their Veracity. Post 8vo. 6s.
- History of the Christian Church in the First Three Centuries. Post 8vo. 6s.
- The Parish Priest; His Duties, Acquirements, and Obligations. Post 8vo. 6s.
- BOOK OF COMMON PRAYER.** Illustrated with Coloured Borders, Initial Letters, and Woodcuts. 8vo. 18s.
- BORROW (GEORGE).** The Bible in Spain; or, the Journeys and Imprisonments of an Englishman in an attempt to circulate the Scriptures in the Peninsula. Portrait. Post 8vo. 2s. 6d.
- The Zincali. An Account of the Gipsies of Spain; Their Manners, Customs, Religion, and Language. 2s. 6d.
- Lavengro; Scholar—Gypsy—and Priest. 2s. 6d.
- Romany Rye. A Sequel to Lavengro. Post 8vo. 2s. 6d.
- WILD WALES: its People, Language, and Scenery. Post 8vo. 2s. 6d.
- Romano Lavo-Lil. With Illustrations of the English Gypsies; their Poetry and Habitations. Post 8vo. 5s.
- BOSWELL'S** Life of Samuel Johnson, LL.D. including the Tour to the Hebrides. Edited by Mr. CROKER. *Seventh Edition.* Portraits. 1 vol. Medium 8vo. 12s.
- BOWEN (LORD JUSTICE).** Virgil in English Verse, Eclogues and Æneid, Books I.—VI. Map and Frontispiece. 8vo. 12s.
- BRADLEY (DEAN).** Arthur Penrhyn Stanley; Biographical Lectures. Crown 8vo. 3s. 6d.
- BREWER (REV. J. S.).** The Reign of Henry VIII.; from his Accession till the Death of Wolsey. Illustrated from Original Documents. Edited by JAMES GAIRDNER. With Portrait. 2 vols. 8vo. 30s.
- The Endowments and Establishment of the Church of England. Edited by L. T. DIBDIN, M.A. Post 8vo. 6s.
- BRIDGES (MRS. F. D.).** A Lady's Travels in Japan, Thibet, Yarkand, Kashmir, Java, the Straits of Malacca, Vancouver's Island, &c. With Map and Illustrations from Sketches by the Author. Crown 8vo. 15s.

BRITISH ASSOCIATION REPORTS. 8vo.

* * * The Reports for the years 1831 to 1875 may be obtained at the Offices of the British Association.

Glasgow, 1876, 25s.	York, 1881, 24s.	Birmingham, 1886, 24s.
Plymouth, 1877, 24s.	Southampton, 1882, 24s.	Manchester, 1887, 24s.
Dublin, 1878, 24s.	Southport, 1883, 24s.	Bath, 1888.
Sheffield, 1879, 24s.	Canada, 1884, 24s.	Newcastle-upon-Tyne,
Swansea, 1880, 24s.	Aberdeen, 1885, 24s.	1889.

BROADFOOT (MAJOR W., R.E.) Record of his Services in Afghanistan, the Punjab, and on the N. W. Frontier of India. Compiled from his papers and those of Lords Ellenborough and Hardinge. Maps. 8vo. 15s.

BROCKLEHURST (T. U.) Mexico To-day: A Country with a Great Future. With a Glance at the Prehistoric Remains and Antiquities of the Montezumas. Plates and Woodcuts. Medium 8vo. 21s.

BRUCE (Hon. W. N.) Life of Sir Charles Napier. [See **NAPIER**.]

BRUGSCH (PROFESSOR) A History of Egypt under the Pharaohs. Derived entirely from Monuments. A New and thoroughly Revised Edition. Edited by M. BRODRICK. Maps. 1 Vol. 8vo. 18s.

BULGARIA. [See **BARKLEY, HUHNS, MINCHIN**.]

BUNBURY (SIR E. H.) A History of Ancient Geography, among the Greeks and Romans, from the Earliest Ages till the Fall of the Roman Empire. Maps. 2 Vols. 8vo. 21s.

BURBIDGE (F. W.) The Gardens of the Sun: or A Naturalist's Journal in Borneo and the Sulu Archipelago. Illustrations. Cr. 8vo. 14s.

BURCKHARDT'S Cicerone; or Art Guide to Painting in Italy. New Edition, revised by J. A. CROWE. Post 8vo. 6s.

BURGESS (SIR JAMES BLAND, BART.) Selections from his Letters and Papers, as Under-Secretary of State for Foreign Affairs. With Notices of his Life. Edited by JAMES HUTTON. 8vo. 15s.

BURTON (DEAN) A Biography Illustrated by Extracts from his Letters and Early Journals. By E. MEYRICK GOULBURN, D.D. Portraits. 2 Vols. 8vo. 24s.

————— The Revision Revised: (1.) The New Greek Text; (2.) The New English Version; (3.) Westcott and Hort's Textual Theory. Second Edition. 8vo. 14s.

————— Lives of Twelve Good Men. Martin J. Routh, H. J. Rose, Chas. Marriott, Edward Hawkins, Saml. Wilberforce, R. L. Cotton, Richard Gresswell, H. O. Coxe, H. L. Mansel, Wm. Jacobson, C. P. Eden, C. L. Higgin. New Edition. With Portraits. 1 Vol. 8vo. 16s.

BURN (COL.) Dictionary of Naval and Military Technical Terms, English and French—French and English. Crown 8vo. 15s.

BUTTMANN'S LEXILOGUS; a Critical Examination of the Meaning of numerous Greek Words, chiefly in Homer and Hesiod. By Rev. J. R. FISHLAKE. 8vo. 12s.

BUXTON (CHARLES) Memoirs of Sir Thomas Fowell Buxton, Bart. Portrait. 8vo. 16s. *Popular Edition.* Fcap. 8vo. 5s.

————— Notes of Thought. With a Biographical Notice. *Second Edition.* Post 8vo. 5s.

————— (SYDNEY C.) A Handbook to the Political Questions of the Day; with the Arguments on Either Side. Eighth Edition. 8vo. 8s.

————— Finance and Politics, an Historical Study. 1783—1885. 2 Vols. 26s.

————— Handbook to the Death Duties. Post 8vo. 3s. 6d.

BYRON'S (LORD) LIFE AND WORKS :—

LIFE, LETTERS, AND JOURNALS. By THOMAS MOORE. One Volume, Portraits. Royal 8vo. 7s. 6d.

LIFE AND POETICAL WORKS. Popular Edition. Portraits. 2 Vols. Royal 8vo. 15s.

POETICAL WORKS. Library Edition. Portrait. 6 Vols. 8vo. 45s.

POETICAL WORKS. Cabinet Edition. Plates. 10 Vols. 12mo. 30s.

POETICAL WORKS. Pocket Ed. 8 Vols. 16mo. In a case. 21s.

POETICAL WORKS. Popular Edition. Plates. Royal 8vo. 7s. 6d.

POETICAL WORKS. Pearl Edition. Crown 8vo. 2s. 6d. Cloth. 3s. 6d.

CHILDE HAROLD. With 80 Engravings. Crown 8vo. 12s.

CHILDE HAROLD. 16mo. 2s. 6d.

CHILDE HAROLD. Vignettes. 16mo. 1s.

CHILDE HAROLD. Portrait. 16mo. 6d.

TALES AND POEMS. 16mo. 2s. 6d.

MISCELLANEOUS. 2 Vols. 16mo. 5s.

DRAMAS AND PLAYS. 2 Vols. 16mo. 5s.

DON JUAN AND BEPPO. 2 Vols. 16mo. 5s.

CAILLARD (E. M.). Electricity; The Science of the 19th Century. A Sketch for General Readers. With Illustrations. Crown 8vo. 7s. 6d.

— The Invisible Powers of Nature. Some Elementary Lessons in Physical Science for Beginners. Post 8vo. 6s.

CALDECOTT (ALFRED). English Colonization and Empire. Coloured Maps and Plans. Crown 8vo. 3s. 6d. (Univ. Extension Series.)

CAMPBELL (LORD). Autobiography, Journals and Correspondence. By Mrs. Hardcastle. Portrait. 2 Vols. 8vo. 30s.

— Lord Chancellors and Keepers of the Great Seal of England. From the Earliest Times to the Death of Lord Eldon in 1838. 10 Vols. Crown 8vo. 6s. each.

— Chief Justices of England. From the Norman Conquest to the Death of Lord Tenterden. 4 Vols. Crown 8vo. 6s. each.

— (THOS.) Essay on English Poetry. With Short Lives of the British Poets. Post 8vo. 3s. 6d.

CAREY (Life of). [See GEORGE SMITH.]

CARLISLE (BISHOP OF). Walks in the Regions of Science and Faith—a Series of Essays. Crown 8vo. 7s. 6d.

— The Foundations of the Creed. Being a Discussion of the Grounds upon which the Articles of the Apostles' Creed may be held by Earnest and Thoughtful Minds in the 19th Century. 8vo. 14s.

CARNARVON (LORD). Portugal, Galicia, and the Basque Provinces. Post 8vo. 3s. 6d.

CAVALCASELLE'S WORKS. [See CROWE.]

CESNOLA (GEN.). Cyprus; its Ancient Cities, Tombs, and Temples. With 400 Illustrations. Medium 8vo. 50s.

CHAMBERS (G. F.). A Practical and Conversational Pocket Dictionary of the English, French, and German Languages. Designed for Travellers and Students generally. Small 8vo. 6s.

CHILD-CHAPLIN (Dr.). Benedicite; or, Song of the Three Children; being Illustrations of the Power, Benevolence, and Design manifested by the Creator in his Works. Post 8vo. 6s.

CHISHOLM (Mrs.). Perils of the Polar Seas; True Stories of Arctic Discovery and Adventure. Illustrations. Post 8vo. 6s.

- CHURTON (ARCHDEACON).** Poetical Remains. Post 8vo. 7s. 6d.
- CLARKE (MAJOR G. SYDENHAM),** Royal Engineers. Fortification; Its Past Achievements, Recent Development, and Future Progress. With Illustrations. Medium 8vo. 21s.
- CLASSIC PREACHERS OF THE ENGLISH CHURCH.** Lectures delivered at St. James'. 2 Vols. Post 8vo. 7s. 6d. each.
- CLEVELAND (DUCHESS OF).** The Battle Abbey Roll. With some account of the Norman Lineages. 8 Vols. Sm. 4to. 48s.
- CLIVE'S (LORD) Life.** By REV. G. R. GLEIG. Post 8vo. 8s. 6d.
- CLODE (C. M.).** Military Forces of the Crown; their Administration and Government. 2 Vols. 8vo. 21s. each.
- Administration of Justice under Military and Martial Law, as applicable to the Army, Navy, and Auxiliary Forces. 8vo. 12s.
- COLEBROOKE (SIR EDWARD, BART.).** Life of the Hon. Mountstuart Elphinstone. With Portrait and Plans. 2 Vols. 8vo. 26s.
- COLERIDGE (SAMUEL TAYLOR),** and the English Romantic School. By PROF. BRANDL. With Portrait, Crown 8vo. 12s.
- Table-Talk. Portrait. 12mo. 3s. 6d.
- COLES (JOHN).** Summer Travelling in Iceland. With a Chapter on Askja. By E. D. MORGAN. Map and Illustrations. 18s.
- COLLINS (J. CHURTON).** BOLINGBROKE: an Historical Study. With an Essay on Voltaire in England. Crown 8vo. 7s. 6d.
- COLONIAL LIBRARY.** [See Home and Colonial Library.]
- COOK (Canon F. C.).** The Revised Version of the Three First Gospels, considered in its Bearings upon the Record of Our Lord's Words and Incidents in His Life. 8vo. 9s.
- The Origins of Language and Religion. 8vo. 15s.
- COOKE (E. W.).** Leaves from my Sketch-Book. With Descriptive Text. 50 Plates. 2 Vols. Small folio. 31s. 6d. each.
- (W. H.). History and Antiquities of the County of Hereford. Vol. III. In continuation of Duncumb's History. 4to. £2 12s. 6d.
- Additions to Duncumb's History. Vol. II. 4to. 15s.
- The Hundred of Grimsworth. Part I. 4to. 17s. 6d.
- COOKERY (MODERN DOMESTIC).** Adapted for Private Families. By a Lady. Woodcuts. Fcap. 8vo. 5s.
- COOLEY (THOMAS M.).** [See AMERICA, RAILWAYS OF.]
- CORNEY GRAIN.** By Himself. Post 8vo. 1s.
- COURTHOPE (W. J.).** The Liberal Movement in English Literature. A Series of Essays. Post 8vo. 6s.
- Life and Works of Alexander Pope. With Portraits. 10 Vols. 8vo. 10s. 6d. each.
- CRABBE (REV. G.).** Life & Works. Illustrations. Royal 8vo. 7s.
- CRAIK (HENRY).** Life of Jonathan Swift. Portrait. 8vo. 18s.
- CRIPPS (WILFRED).** Old English Plate: Ecclesiastical, Decorative, and Domestic, its Makers and Marks. New Edition. With Illustrations and 2010 facsimile Plate Marks. Medium 8vo. 21s.
- *.* Tables of the Date Letters and Marks sold separately. 5s.
- CROKER (RT. HON. J. W.).** Correspondence and Journals, relating to the Political and Social Events of the first half of the present Century. Edited by LOUIS J. JENNINGS, M.P. Portrait. 3 Vols. 8vo. 45s.

- CROKER (RT. HON. J. W.). Progressive Geography for Children. 18mo. 1s 6d.
- Boswell's Life of Johnson. [See BOSWELL.]
- Historical Essay on the Guillotine. Fcap. 8vo. 1s.
- CROWE AND CAVALCASELLE. Lives of the Early Flemish Painters. Woodcuts. Post 8vo. 7s. 6d.; or Large Paper 8vo. 15s.
- Life and Times of Titian, with some Account of his Family. Illustrations. 2 Vols. 8vo. 21s.
- Raphael; His Life and Works. 2 Vols. 8vo. 33s.
- CUMMING (R. GORDON). Five Years of a Hunter's Life in the Far Interior of South Africa. Woodcuts. Post 8vo. 6s.
- CUNDILL (COLONEL J. P.), R.A., and HAKE (C. NAPIER). Researches on the Power of Explosives. Translated and Condensed from the French of M. BERTHELOT. With Illustrations. 8vo.
- CUNNINGHAM (PROF. W.), D.D. The Use and Abuse of Money. Crown 8vo. 3s. (University Extension Series.)
- CURRIE (C. L.). An Argument for the Divinity of Jesus Christ. Translated from the French of the ABBÉ EM. BOUGAUD. Post 8vo. 6s.
- CURTIUS' (PROFESSOR) Student's Greek Grammar, for the Upper Forms. Edited by DR. WM. SMITH. Post 8vo. 6s.
- Elucidations of the above Grammar. Translated by EVELYN ABBOT. Post 8vo. 7s. 6d.
- Smaller Greek Grammar for the Middle and Lower Forms. Abridged from the larger work. 12mo. 3s. 6d.
- Accidence of the Greek Language. Extracted from the above work. 12mo. 2s. 6d.
- Principles of Greek Etymology. Translated by A. S. WILKINS and E. B. ENGLAND. New Edition. 2 Vols. 8vo. 23s.
- The Greek Verb, its Structure and Development. Translated by A. S. WILKINS, and E. B. ENGLAND. 8vo. 12s.
- CURZON (HON. ROBERT). Visits to the Monasteries of the Levant. Illustrations. Post 8vo. 7s. 6d.
- CUST (GENERAL). Warriors of the 17th Century—Civil Wars of France and England. 2 Vols. 16s. Commanders of Fleets and Armies. 2 Vols. 18s.
- Annals of the Wars—18th & 19th Century. With Maps. 9 Vols. Post 8vo. 5s. each.
- DAVY (SIR HUMPHRY). Consolations in Travel; or, Last Days of a Philosopher. Woodcuts. Fcap. 8vo. 3s. 6d.
- Salmonia; or, Days of Fly Fishing. Woodcuts. Fcap. 8vo. 3s. 6d.
- DE COSSON (MAJOR E. A.). The Cradle of the Blue Nile; a Journey through Abyssinia and Soudan. Map and Illustrations. 2 Vols. Post 8vo. 21s.
- Days and Nights of Service with Sir Gerald Graham's Field Force at Suakim. Plan and Illustrations. Crown 8vo. 14s.
- DENNIS (GEORGE). The Cities and Cemeteries of Etruria. 20 Plans and 200 Illustrations. 2 Vols. Medium 8vo. 21s.
- (ROBERT). Industrial Ireland. Suggestions for a Practical Policy of "Ireland for the Irish." Crown 8vo. 6s.
- DARWIN'S (CHARLES) Life and Letters, with an autobiographical Chapter. Edited by his Son, FRANCIS DARWIN, F.R.S. Portraits. 3 Vols. 8vo. 36s.
- An Illustrated Edition of the Voyage of a Naturalist Round the World in H.M.S. Beagle. With Views of Places Visited and Described. By R. T. PRITCHETT. 100 Illustrations. Medium 8vo. 21s.

DARWIN (CHARLES) *continued.*

- JOURNAL OF A NATURALIST DURING A VOYAGE ROUND THE WORLD.** Popular Edition. With Portrait. 3s. 6d.
- ORIGIN OF SPECIES BY MEANS OF NATURAL SELECTION.** Library Edition. 2 vols. 12s.; or popular Edition. 6s.
- DESCENT OF MAN, AND SELECTION IN RELATION TO SEX.** Woodcuts. Library Ed. 2 vols. 15s.; or popular Ed. 7s. 6d.
- VARIATION OF ANIMALS AND PLANTS UNDER DOMESTICATION.** Woodcuts. 2 Vols. 15s.
- EXPRESSIONS OF THE EMOTIONS IN MAN AND ANIMALS.** With Illustrations. 12s.
- VARIOUS CONTRIVANCES BY WHICH ORCHIDS ARE FERTILIZED BY INSECTS.** Woodcuts. 7s. 6d.
- MOVEMENTS AND HABITS OF CLIMBING PLANTS.** Woodcuts. 6s.
- INSECTIVOROUS PLANTS.** Woodcuts. 9s.
- CROSS AND SELF-FERTILIZATION IN THE VEGETABLE KINGDOM.** 9s.
- DIFFERENT FORMS OF FLOWERS ON PLANTS OF THE SAME SPECIES.** 7s. 6d.
- POWER OF MOVEMENT IN PLANTS.** Woodcuts.
- THE FORMATION OF VEGETABLE MOULD THROUGH THE ACTION OF WORMS.** Illustrations. Post 8vo. 6s.
- LIFE OF ERASMUS DARWIN.** Portrait. Crown 8vo. 7s. 6d.
- FACTS AND ARGUMENTS FOR DARWIN.** By FRITZ MULLER. Woodcuts. Post 8vo. 6s.
- DERBY (EARL OF).** Iliad of Homer rendered into English Blank Verse. With Portrait. 2 Vols. Post 8vo. 10s.
- DERRY (BISHOP OF).** Witness of the Psalms to Christ and Christianity. Crown 8vo. 9s.
- DICEY (PROF. A. V.).** England's Case against Home Rule. Crown 8vo. 7s. 6d.
- Why England Maintains the Union. A popular rendering of the above. By C. E. S. Fcap. 8vo. 1s.
- DOG-BREAKING.** [See HUTCHINSON.]
- DÖLLINGER (DR.).** Studies in European History, being Academic Addresses. Translated by MARGARET WARRE. Portrait. 8vo. 14s.
- DRAKE'S (SIR FRANCIS) Life, Voyages, and Exploits, by Sea and Land.** By JOHN BARROW. Post 8vo. 2s.
- DRINKWATER (JOHN).** History of the Siege of Gibraltar, 1779-1783. With a Description of that Garrison. Post 8vo. 2s.
- DU CHAILLU (PAUL B.).** Land of the Midnight Sun; Illustrations. 2 Vols. 8vo. 36s.
- The Viking Age. The Early History, Manners, and Customs of the Ancestors of the English-speaking Nations. With 1,300 Illustrations. 2 Vols. 8vo. 42s.
- Equatorial Africa and Ashango Land. Adventures in the Great Forest of Equatorial Africa, and the Country of the Dwarfs. Popular Edition. With Illustrations. Post 8vo. 7s. 6d.
- DUFFERIN (LORD).** Letters from High Latitudes; a Yacht Voyage to Iceland. Woodcuts. Post 8vo. 7s. 6d.
- Speeches in India, 1884-8. 8vo. 9s.
- (LADY). Our Viceregal Life in India, 1884-1888. Portrait. Post 8vo. 7s. 6d.
- My Canadian Journal, 1872-78. Extracts from Home Letters written while Lord Dufferin was Gov.-Gen. Portrait, Map, and Illustrations. Crown 8vo. 12s. 100 Large Paper Copies, 1l. 1s. each.

- DUNCAN (COL.)**. English in Spain; or, The Story of the War of Succession, 1834-1840. 8vo. 16s.
- DÜRER (ALBERT)**; his Life and Work. By DR. THAUSING. Edited by F. A. EATON. Illustrations. 2 Vols. Medium 8vo. 42s.
- EARLE (Professor JOHN)**. The Psalter of 1539: A Landmark of English Literature. Comprising the Text, in Black Letter Type. With Notes. Square 8vo.
- EASTLAKE (SIR C.)**. Contributions to the Literature of the Fine Arts. With Memoir by LADY EASTLAKE. 2 Vols. 8vo. 24s.
- EDWARDS (W. H.)**. Voyage up the River Amazon, including a Visit to Para. Post 8vo. 2s.
- ELLESMERE (LORD)**. Two Sieges of Vienna by the Turks. Post 8vo. 2s.
- ELLIOT (MRS MINTO)**. The Diary of an Idle Woman in Constantinople. Crown 8vo.
- ELLIS (W.)**. Madagascar Revisited. 8vo. 16s.
- Memoir. By HIS SON. Portrait. 8vo. 10s. 6d.
- (ROBINSON). Poems and Fragments of Catullus. 16mo. 5s.
- ELPHINSTONE (HON. M.)**. History of India—the Hindoo and Mahomedan Periods. Edited by PROFESSOR COWELL. Map. 8vo. 18s.
- Rise of the British Power in the East. A Continuation of his History of India in the Hindoo and Mahomedan Periods. Maps. 8vo. 16s.
- Life of. [See COLEBROOKE.]
- (H. W.). Patterns for Ornamental Turning. Illustrations. Small 4to. 15s.
- ELTON (CAPT.)**. Adventures among the Lakes and Mountains of Eastern and Central Africa. Illustrations. 8vo. 21s.
- ELWIN (Rev. WARWICK)**. The Minister of Baptism. A History of Church Opinion from the time of the Apostles, especially with reference to Heretical and Lay Administration. 8vo. 12s.
- ENGLAND**. [See ARTHUR—BREWER—CROKER—HUME—MARKHAM—SMITH—and STANHOPE.]
- ESSAYS ON CATHEDRALS**. Edited by DEAN HOWSON. 8vo. 12s.
- ETON LATIN GRAMMAR**. For use in the Upper Forms. By F. H. RAWLINS, M.A., and W. R. INGE, M.A. Crown 8vo. 6s.
- **ELEMENTARY LATIN GRAMMAR**. For use in the Lower Forms. Compiled by A. C. AINGER, M.A., and H. G. WINTLE, M.A. Crown 8vo. 3s. 6d.
- **PREPARATORY ETON GRAMMAR**. Abridged from the above Work. By the same Editors. Crown 8vo. 2s.
- **FIRST LATIN EXERCISE BOOK**, adapted to the Elementary and Preparatory Grammars. By the same Editors. Crown 8vo. 2s. 6d.
- **FOURTH FORM OVID**. Selections from Ovid and Tibullus. With Notes by H. G. WINTLE. Post 8vo. 2s. 6d.
- ETON HORACE**. The Odes, Epodes, and Carmen Sæculare. With Notes. By F. W. CORNISH, M.A. Maps. Crown 8vo. 6s.
- **EXERCISES IN ALGEBRA**, by E. P. ROUSE, M.A., and ARTHUR COCKSHOTT, M.A. Crown 8vo. 3s.
- **ARITHMETIC**. By REV. T. DALTON, M.A. Crown 8vo. 3s.
- EXPLOSIVES**. [See CUNDILL.]
- FERGUSON (JAMES)**. History of Architecture in all Countries from the Earliest Times. A New and thoroughly Revised Edition. With 1,700 Illustrations. 5 Vols. Medium 8vo.
- Vols. I. & II. Ancient and Mediæval. 63s.
- III. Indian & Eastern. 31s. 6d. IV. Modern. 2 vols. 31s. 6d.

- FITZGERALD (Bishop).** Lectures on Ecclesiastical History, including the origin and progress of the English Reformation, from Wicliffe to the Great Rebellion. With a Memoir. 2 Vols. 8vo. 21s.
- FITZPATRICK (WILLIAM J.).** The Correspondence of Daniel O'Connell, the Liberator. With Portrait. 2 Vols. 8vo. 36s.
- FLEMING (PROFESSOR).** Student's Manual of Moral Philosophy. With Quotations and References. Post 8vo. 7s. 6d.
- FLOWER GARDEN.** By REV. THOS. JAMES. Fcap. 8vo. 1s.
- FORD (ISABELLA O.).** Miss Blake of Monkshalton. A Novel. Crown 8vo. 5s.
- FORD (RICHARD).** Gatherings from Spain. Post 8vo. 3s. 6d.
- FORSYTH (WILLIAM).** Hortensius; an Historical Essay on the Office and Duties of an Advocate. Illustrations. 8vo. 7s. 6d.
- FORTIFICATION.** [See CLARKE.]
- FRANCE (HISTORY OF).** [See ARTHUR—MARKHAM—SMITH—STUDENTS'—TOCQUEVILLE.]
- FREAM (W.), LL.D.** Elements of Agriculture; a text-book prepared under the authority of the Royal Agricultural Society of England. With 200 Illustrations. Crown 8vo. 2s. 6d.
- FRENCH IN ALGIERS; The Soldier of the Foreign Legion—** and the Prisoners of Abd-el-Kadir. Post 8vo. 2s.
- FRERE (MARY).** Old Deccan Days, or Hindoo Fairy Legends current in Southern India, with Introduction by Sir BARTLE FRERE. With Illustrations. Post 8vo. 5s.
- GALTON (F.).** Art of Travel; or, Hints on the Shifts and Contrivances available in Wild Countries. Woodcuts. Post 8vo. 7s. 6d.
- GAMBIER PARRY (T.).** The Ministry of Fine Art to the Happiness of Life. Revised Edition, with an Index. 8vo. 14s.
- (MAJOR). The Combat with Suffering. Fcap. 8vo. 3s. 6d.
- GARDNER (PROF. PERCY).** New Chapters in Greek History. Historical results of recent excavations in Greece and Asia Minor. With Illustrations. 8vo.
- GEOGRAPHY.** [See BUNBURY—CROKER—RAMSAY—RICHARDSON—SMITH—STUDENTS'.]
- GEOGRAPHICAL SOCIETY'S JOURNAL. (1846 to 1881.)**
SUPPLEMENTARY PAPERS. Royal 8vo.
 Vol. I., Part i. Travels and Researches in Western China. By E. COLBORNE BABER. Maps. 5s.
 Part ii.—1. Recent Geography of Central Asia; from Russian Sources. By E. DELMAR MORGAN. 2. Progress of Discovery on the Coasts of New Guinea. By C. B. MARKHAM. Bibliographical Appendix, by E. C. RVE. Maps. 5s.
 Part iii.—1. Report on Part of the Ghilzi Country, &c. By Lieut. J. S. BROADFOOT. 2. Journey from Shiraz to Jashk. By J. R. PREECE. 2s. 6d.
 Part iv.—Geographical Education. By J. S. KELTIE. 2s. 6d.
 Vol. II., Part i.—1. Exploration in S. and S.W. China. By A. R. COLQUHOUN. 2. Bibliography and Cartography of Hispaniola. By H. LING ROTH. 3. Explorations in Zanzibar Dominions by Lieut. C. STEWART SMITH, R.N. 2s. 6d.
 Part ii.—A Bibliography of Algeria, from the Expedition of Charles V. in 1541 to 1887. By SIR R. L. PLAYFAIR. 4s.
 Part iii.—1. On the Measurement of Heights by the Barometer. By JOHN BALL, F.R.S. 2. River Entrances. By HUGH ROBERT MILL. 3. Mr. J. F. Needham's Journey in South Eastern Tibet.
 Part iv.—1. The Bibliography of the Barbary States. Part i. By SIR R. L. PLAYFAIR. 2. Hulson's Bay and Strait. By Commodore A. H. MARKHAM, R.N.
 Vol. III., Part i.—Journey of Carey and Dalgleish in Chinese Turkestan and Northern Tibet; and General Prejevalsky on the Orography of Northern Tibet.

- GEORGE (ERNEST).** The Mosel ; Twenty Etchings. Imperial 4to. 42s.
 ——— Loire and South of France ; Twenty Etchings. Folio. 42s.
- GERMANY (HISTORY OF).** [See MARKHAM.]
- GIBBON'S** History of the Decline and Fall of the Roman Empire. Edited with notes by MILMAN, GUIZOT, and Dr. WM. SMITH. Maps. 8 Vols. 8vo. 60s. Student's Edition. 7s. 6d. (See STUDENT'S.)
- GIFFARD (EDWARD).** Deeds of Naval Daring ; or, Anecdotes of the British Navy. Fcap. 8vo. 3s. 6d.
- GILBERT (JOSIAH).** Landscape in Art : before the days of Claude and Salvator. With 150 Illustrations. Medium 8vo. 30s.
- GILL (CAPT.).** The River of Golden Sand. A Journey through China to Burmah. Edited by E. C. BABER. With MEMOIR by Col. YULE, C.B. Portrait, Map, and Illustrations. Post 8vo. 7s. 6d.
 ——— (MRS.). Six Months in Ascension. An Unscientific Account of a Scientific Expedition. Map. Crown 8vo. 9s.
- GLADSTONE (W. E.).** Rome and the Newest Fashions in Religion. 8vo. 7s. 6d.
 ——— Gleanings of Past Years, 1843-78. 7 Vols. Small 8vo. 2s. 6d. each. I. The Throne, the Prince Consort, the Cabinet and Constitution. II. Personal and Literary. III. Historical and Speculative. IV. Foreign. V. and VI. Ecclesiastical. VII. Miscellaneous.
- GLEIG (G. R.).** Campaigns of the British Army at Washington and New Orleans. Post 8vo. 2s.
 ——— Story of the Battle of Waterloo. Post 8vo. 3s. 6d.
 ——— Narrative of Sale's Brigade in Affghanistan. Post 8vo. 2s.
 ——— Life of Lord Clive. Post 8vo. 3s. 6d.
 ——— Sir Thomas Munro. Post 8vo. 3s. 6d.
- GOLDSMITH'S (OLIVER) Works.** Edited with Notes by PETER CUNNINGHAM. Vignettes. 4 Vols. 8vo. 30s.
- GOMM (F.M. SIR WM.).** His Letters and Journals. 1799 to 1815. Edited by F. C. Carr Gomm. With Portrait. 8vo. 12s.
- GORDON (SIR ALEX.).** Sketches of German Life, and Scenes from the War of Liberation. Post 8vo. 3s. 6d.
 ——— (LADY DUFF). The Amber-Witch. Post 8vo. 2s.
 See also ROSS.
 ——— The French in Algiers. Post 8vo. 2s.
- GORE (REV. CHARLES, Edited by).** Lux Mundi. A Series of Studies in the Religion of the Incarnation. By various Writers. Popular Edition, Crown 8vo. 6s.
 ——— The Bampton Lectures, 1891 ; The Incarnation of the Son of God. 8vo. 7s. 6d.
- GOULBURN (DEAN).** Three Counsels of the Divine Master for the conduct of the Spiritual Life:—The Commencement ; The Virtues ; The Conflict. Crown 8vo. 9s.
 See also BURGON.
- GRAMMARS.** [See CURTIUS — ETON — HALL — HUTTON — KING EDWARD — LEATHES — MAETZNER — MATTHIE — SMITH.]
- GREECE (HISTORY OF).** [See GROTE — SMITH — STUDENTS'.]
- GRIFFITH (REV. CHARLES).** A History of Strathfieldsaye. With Illustrations. 4to. 10s. 6d.

GROTE'S (GEORGE) WORKS :—

HISTORY OF GREECE. From the Earliest Times to the Death of Alexander the Great. *New Edition.* Portrait, Map, and Plans. 10 Vols. Post 8vo. 5s. each. (*The Volumes may be had Separately.*)

PLATO, and other Companions of Socrates. 3 Vols. 8vo. 45s.; or, *New Edition,* Edited by ALEX. BAIN. 4 Vols. Crown 8vo. 5s. each.

ARISTOTLE. 8vo. 12s.

PERSONAL LIFE. Portrait. 8vo. 12s.

MINOR WORKS. Portrait. 8vo. 14s.

— (MRS.). **A Sketch.** By LADY EASTLAKE. Crown 8vo. 6s.

GUILLEMARD (F. H.), M.D. **The Voyage of the Marchesa to Kamschatka and New Guinea.** With Notices of Formosa and the Islands of the Malay Archipelago. *New Edition.* With Maps and 150 Illustrations. One volume. Medium 8vo. 21s.

HAKE (G. NAPIER) on Explosives. [See CUNDILL.]

HALL'S (T. D.) **School Manual of English Grammar.** With Illustrations and Practical Exercises. 12mo. 3s. 6d.

— **Primary English Grammar for Elementary Schools.** With numerous Exercises, and graduated Parsing Lessons. 16mo. 1s.

— **Manual of English Composition.** With Copious Illustrations and Practical Exercises. 12mo. 3s. 6d.

— **Child's First Latin Book,** comprising a full Practice of Nouns, Pronouns, and Adjectives, with the Verbs. 16mo. 2s.

HALLAM'S (HENRY) WORKS :—

THE CONSTITUTIONAL HISTORY OF ENGLAND. *Library Edition,* 3 Vols. 8vo. 30s. *Cabinet Edition,* 3 Vols. Post 8vo. 12s. *Student's Edition,* Post 8vo. 7s. 6d.

HISTORY OF EUROPE DURING THE MIDDLE AGES. *Library Edition,* 3 Vols. 8vo. 30s. *Cabinet Edition,* 3 Vols. Post 8vo. 12s. *Student's Edition,* Post 8vo. 7s. 6d.

LITERARY HISTORY OF EUROPE DURING THE 15TH, 16TH, AND 17TH CENTURIES. *Library Edition,* 3 Vols. 8vo. 36s. *Cabinet Edition,* 4 Vols. Post 8vo. 16s. [Portrait. Fcap. 8vo. 3s. 6d.]

HART'S ARMY LIST. (*Published Quarterly and Annually.*)

HAY (SIR J. H. DRUMMOND). **Western Barbary, its Wild Tribes and Savage Animals.** Post 8vo. 2s.

HAYWARD (A.). **Sketches of Eminent Statesmen and Writers,** 2 Vols. 8vo. 28s.

— **The Art of Dining.** Post 8vo. 2s.

— **A Selection from his Correspondence.** Edited with an Introductory account of Mr. Hayward's Early Life. By H. E. CARLISLE. 2 vols. Crown 8vo. 24s.

HEAD'S (SIR FRANCIS) WORKS :—

THE ROYAL ENGINEER. Illustrations. 8vo. 12s.

LIFE OF SIR JOHN BURGoyNE. Post 8vo. 1s.

RAPID JOURNEYS ACROSS THE PAMPAS. Post 8vo. 2s.

STOKERS AND POKERS; or, the L. and N. W. R. Post 8vo. 2s.

HEBER'S (BISHOP) Journals in India. 2 Vols. Post 8vo. 7s.

— **Poetical Works.** Portrait. Fcap. 8vo. 3s. 6d.

HERODOTUS. A New English Version. Edited, with Notes and Essays by CANON RAWLINSON, SIR H. RAWLINSON and SIR J. G. WILKINSON. Maps and Woodcuts. 4 Vols. 8vo. 48s.

HERRIES (RT. HON. JOHN). **Memoir of his Public Life.** By his Son, Edward Herries, C.B. 2 Vols. 8vo. 24s.

FOREIGN HAND-BOOKS.

- HAND-BOOK—TRAVEL-TALK.** English, French, German, and Italian. New and Revised Edition. 18mo. 3s. 6d.
- **DICTIONARY:** English, French, and German. Containing all the words and idiomatic phrases likely to be required by a traveller. Bound in leather. 16mo. 6s.
- **HOLLAND AND BELGIUM.** Map and Plans. 6s.
- **NORTH GERMANY and THE RHINE,**—The Black Forest, the Hartz, Thüringerwald, Saxon Switzerland, Rügen, the Giant Mountains, Taunus, Odenwald, Elsass, and Lothringen. Map and Plans. Post 8vo. 10s.
- **SOUTH GERMANY AND AUSTRIA.**—Wurtemberg, Bavaria, Austria, Tyrol, Styria, Salzburg, the Dolomites Hungary, and the Danube, from Uim to the Black Sea. Maps and Plans. Two Parts. Post 8vo. 12s.
- **SWITZERLAND,** Alps of Savoy, and Piedmont in Two Parts. Maps and Plans. Post 8vo. 10s.
- **FRANCE, Part I.** Normandy, Brittany, the French Alps, the Loire, Seine, Garonne, and Pyrenees. Maps and Plans. 7s. 6d.
- **FRANCE, Part II.** Central France, Auvergne, the Cevennes, Burgundy, the Rhone and Saone, Provence, Nimes, Arles, Marseilles, the French Alps, Alsace, Lorraine, Champagne, &c. Maps and Plans. Post 8vo. 7s. 6d.
- **THE RIVIERA.** Provence, Dauphiné. The Alpes Maritimes, Avignon, Nimes, Arles, Marseilles, Toulon, Cannes, Grasse, Nice, Monaco, Mentone, Bordighera, San Remo, Alassio, Savona, &c.; Grenoble, Grande Chartreuse. Maps and Plans. 8vo. 5s.
- **MEDITERRANEAN** — its Principal Islands, Cities, Seaports, Harbours, and Border Lands. For Travellers and Yachtsmen, with nearly 50 Maps and Plans. Two Parts. Post 8vo. 21s.
- **ALGERIA AND TUNIS.** Algiers, Constantine, Oran, Tlemcen, Bougie, Tessa, Biskra, the Atlas Range. Maps and Plans. Post 8vo. 12s.
- **PARIS, and Environs.** Maps and Plans. 3s. 6d.
- **SPAIN,** Madrid, The Castiles, The Basque Provinces, Leon, The Asturias, Galicia, Estremadura, Andalusia, Ronda, Granada, Murcia, Valencia, Catalonia, Aragon, Navarre, The Balearic Islands, &c. &c. Maps and Plans. Two Parts. Post 8vo. 20s.
- **PORTUGAL,** LISBON, Oporto, Cintra, Mafra, Madeira, the Azores, Canary Islands, &c. Map and Plan. 12s.
- **NORTH ITALY,** Turin, Milan, Cremona, the Italian Lakes, Bergamo, Brescia, Verona, Mantua, Vicenza, Padua, Ferrara, Bologna, Ravenna, Rimini, Piacenza, Genoa, the Riviera, Venice, Parma, Modena, and Romagna. Maps and Plans. Post 8vo. 10s.
- **CENTRAL ITALY,** Florence, Lucca, Tuscany, The Marshes, Umbria, &c. Maps and Plans. Two Parts. Post 8vo. 10s.
- **ROME and ITS ENVIRONS.** 50 Maps and Plans. 10s.
- **SOUTH ITALY AND SICILY,** including Naples and its Environs, Pompeii, Herculaneum, Vesuvius; Sorrento; Capri; Amalfi, Paestum, Pozzuoli, Capua, Taranto, Bari; Brindisi and the Roads from Rome to Naples; Palermo, Messina, Syracuse, Catania &c. Two Parts. Maps. Post 8vo. 12s.
- **NORWAY,** Christiania, Bergen, Trondhjem. The Fjelds and Fjords. Maps and Plans. Post 8vo.
- **SWEDEN,** Stockholm, Upsala, Gothenburg, the Shores of the Baltic, &c. Maps and Plan. Post 8vo. 6s.

- HAND-BOOK—DENMARK**, Sleswig, Holstein, Copenhagen, Jutland, Iceland. Maps and Plans. Post 8vo. 6s.
- **RUSSIA, ST. PETERSBURG, MOSCOW, POLAND, and FINLAND.** Maps and Plans. Post 8vo. 18s.
- **GREECE**, the Ionian Islands, Athens, the Peloponnesus, the Islands of the Ægean Sea, Albania, Thessaly, Macedonia, &c. In Two Parts. Maps, Plans, and Views. Post 8vo. 24s.
- **TURKEY IN ASIA—CONSTANTINOPLE**, the Bosphorus, Dardanelles, Brousa, Plain of Troy, Crete, Cyprus, Smyrna, Ephesus, the Seven Churches, Coasts of the Black Sea, Armenia, Euphrates Valley, Route to India, &c. Maps and Plans. Post 8vo.
- **EGYPT.** The Course of the Nile through Egypt and Nubia, Alexandria, Cairo, Thebes, Suez Canal, the Pyramids, Sinai, the Fyoom, &c. Maps and Plans. Post 8vo.
- **HOLY LAND—SYRIA, PALESTINE, MOAB, HAURAN**, Syrian Deserts, Jerusalem, Damascus; and Palmyra. Maps and Plans. Post 8vo. 18s. *.* Map of Palestine. In a case. 12s.
- **BOMBAY—Poonah, Beejapoor, Kolapoor, Goa**, Jubulpoor, Indore, Surat, Baroda, Ahmedabad, Somnauth, Kurrachee, &c. Map and Plans. Post 8vo. 15s.
- **MADRAS—Trichinopoli, Madura, Tinnevely, Tuticorin, Bangalore, Mysore, The Nilgiris, Wynaad, Ootacamund, Calicut, Hyderabad, Ajanta, Elura Caves, &c.** Maps and Plans. Post 8vo. 16s.
- **BENGAL—Calcutta, Orissa, British Burmah, Rangoon, Moulmein, Mandalay, Darjiling, Dacca, Patna, Benares, N.-W. Provinces, Allahabad, Cawnpore, Lucknow, Agra, Gwalior, Naini Tal, Delhi, &c.** Maps and Plans. Post 8vo. 20s.
- **THE PANJAB—Amraoti, Indore, Ajmir, Jaypur, Rohtak, Saharanpur, Ambala, Lodiana, Lahore, Kulu, Simla, Sialkot, Peshawar, Rawul Pindi, Attock, Karachi, Sibi, &c.** Maps. 15s.
- **INDIA AND CEYLON**, including the Provinces of Bengal, Bombay, and Madras (the Punjab, North-west Provinces, Rajputana, the Central Provinces, Mysore, &c.), the Native States and Assam. With 55 Maps and Plans of Towns and Buildings. Post 8vo. 15s.
- **JAPAN.** Revised and for the most part Rewritten. With 15 Maps. Post 8vo. 15s. *nett.*

ENGLISH HAND-BOOKS.

- HAND-BOOK—ENGLAND AND WALES.** An Alphabetical Hand-Book. In One Volume. With Map. Post 8vo. 12s.
- **LONDON.** Maps and Plans. 16mo. 3s. 6d.
- **ENVIRONS OF LONDON** within a circuit of 20 miles. 2 Vols. Crown 8vo. 21s.
- **ST. PAUL'S CATHEDRAL.** 20 Woodcuts. 10s. 6d.
- **EASTERN COUNTIES**, Chelmsford, Harwich, Colchester, Maldon, Cambridge, Ely, Newmarket, Bury St. Edmunds, Ipswich, Woodbridge, Felixstowe, Lowestoft, Norwich, Yarmouth, Cromer, &c. Maps and Plans. Post 8vo. 12s.
- **CATHEDRALS of Oxford, Peterborough, Norwich, Ely, and Lincoln.** With 90 Illustrations. Crown 8vo. 21s.
- **KENT**, Canterbury, Dover, Ramsgate, Sheerness, Rochester, Chatham, Woolwich. Maps and Plans. Post 8vo. 7s. 6d.
- **SUSSEX**, Brighton, Chichester, Worthing, Hastings, Lewes, Arundel, &c. Maps and Plans. Post 8vo. 6s.

- HAND-BOOK—SURREY AND HANTS**, Kingston, Croydon, Reigate, Guildford, Dorking, Winchester, Southampton, New Forest, Portsmouth, ISLE OF WIGHT, &c. Maps and Plans. Post 8vo. 10s.
- **BERKS, BUCKS, AND OXON**, Windsor, Eton, Reading, Aylesbury, Uxbridge, Wycombe, Henley, Oxford, Blenheim, the Thames, &c. Maps and Plans. Post 8vo. 9s.
- **WILTS, DORSET, AND SOMERSET**, Salisbury, Chippenham, Weymouth, Sherborne, Wells, Bath, Bristol, Taunton, &c. Map. Post 8vo. 12s.
- **DEVON**, Exeter, Ilfracombe, Linton, Sidmouth, Dawlish, Teignmouth, Plymouth, Devonport, Torquay. Maps and Plans. Post 8vo. 7s. 6d.
- **CORNWALL**, Launceston, Penzance, Falmouth, the Lizard, Land's End, &c. Maps. Post 8vo. 6s.
- **CATHEDRALS** of Winchester, Salisbury, Exeter, Wells, Chichester, Rochester, Canterbury, and St. Albans. With 130 Illustrations. 2 Vols. Crown 8vo. 36s. St. Albans separately. 6s.
- **GLOUCESTER, HEREFORD, AND WORCESTER**, Cirencester, Cheltenham, Stroud, Tewkesbury, Leominster, Ross, Malvern, Kidderminster, Dudley, Evesham, &c. Map. Post 8vo. 9s.
- **CATHEDRALS** of Bristol, Gloucester, Hereford, Worcester, and Lichfield. With 50 Illustrations. Crown 8vo. 16s.
- **NORTH WALES**, Bangor, Carnarvon, Beaumaris, Snowdon, Llanberis, Dolgelly, Conway, &c. Maps. Post 8vo. 7s.
- **SOUTH WALES**, Monmouth, Llandaff, Merthyr, Vale of Neath, Pembroke, Carmarthen, Tenby, Swansea, The Wye, &c. Map. Post 8vo. 7s.
- **CATHEDRALS OF BANGOR, ST. ASAPH**, Llandaff, and St. David's. With Illustrations. Post 8vo. 15s.
- **NORTHAMPTONSHIRE AND RUTLAND**—Northampton, Peterborough, Towcester, Daventry, Market Harborough, Kettering, Wellingborough, Thrapston, Stamford, Uppingham, Oakham. Maps. Post 8vo. 7s. 6d.
- **DERBY, NOTTS, LEICESTER, STAFFORD**, Matlock, Bakewell, Chatsworth, The Peak, Buxton, Hardwick, Dove Dale, Ashborne, Southwell, Mansfield, Retford, Burton, Belvoir, Melton Mowbray, Wolverhampton, Lichfield, Walsall, Tamworth. Map. Post 8vo.
- **SHROPSHIRE AND CHESHIRE**, Shrewsbury, Ludlow, Bridgnorth, Oswestry, Chester, Crewe, Alderley, Stockport, Birkenhead. Maps and Plans. Post 8vo. 6s.
- **LANCASHIRE**, Warrington, Bury, Manchester, Liverpool, Burnley, Clitheroe, Bolton, Blackburne, Wigan, Preston, Rochdale, Lancaster, Southport, Blackpool, &c. Maps & Plans. Post 8vo. 7s. 6d.
- **THE ENGLISH LAKES**, in Cumberland, Westmoreland, and Lancashire; Lancaster, Furness Abbey, Ambleside, Kendal, Windermere, Coniston, Keswick, Grasmere, Ulswater, Carlisle, Cockermouth, Penrith, Appleby, &c. Maps. Post 8vo. 7s. 6d.
- **YORKSHIRE**, Doncaster, Hull, Selby, Beverley, Scarborough, Whitby, Harrogate, Ripon, Leeds, Wakefield, Bradford, Halifax, Huddersfield, Sheffield. Map and Plans. Post 8vo. 12s.
- **CATHEDRALS** of York, Ripon, Durham, Carlisle, Chester, and Manchester. With 60 Illustrations. 2 Vols. Cr. 8vo. 21s.
- **DURHAM AND NORTHUMBERLAND**, Newcastle, Darlington, Stockton, Hartlepool, Shields, Berwick-on-Tweed, Morpeth, Tynemouth, Coldstream, Alnwick, &c. Map. Post 8vo. 10s.
- **LINCOLNSHIRE**, Grantham, Lincoln, Stamford, Louth, Spalding, Gainsborough, Grimsby, Boston. Maps and Plans. Post 8vo. 7s. 6d.
- **WARWICKSHIRE**. Map. Post 8vo.
- **HERTS, BEDS AND HUNTS**.

- HAND-BOOK—SCOTLAND**, Edinburgh, Melrose, Kelso, Glasgow, Dumfries, Ayr, Stirling, Arran, The Clyde, Oban, Inverary, Loch Lomond, Loch Katrine and Trossachs, Caledonian Canal, Inverness, Perth, Dundee, Aberdeen, Braemar, Skye, Caithness, Ross, Sutherland, &c. Maps and Plans. Post 8vo. 9s.
- IRELAND, Dublin, Belfast, the Giant's Causeway, Donegal, Galway, Wexford, Cork, Limerick, Waterford, Killarney, Bantry, Glengariff, &c. Maps and Plans. Post 8vo. 10s.
- HICKSON (DR. SYDNEY J.)**. A Naturalist in North Celebes; a Narrative of Travels in Minahassa, the Sangir and Talaut Islands, with Notices of the Fauna, Flora, and Ethnology of the Districts visited. Map and Illustrations. 8vo. 16s.
- HISLOP (STEPHEN)**. [See SMITH, GEORGE.]
- HOBSON (J. A.)**. [See MUMMERY.]
- HOLLWAY (J. G.)**. A Month in Norway. Fcap. 8vo. 2s.
- HONEY BEE**. By REV. THOMAS JAMES. Fcap. 8vo. 1s.
- HOOK (DEAN)**. Church Dictionary. A Manual of Reference for Clergymen and Students. New Edition, thoroughly revised. Edited by WALTER HOOK, M.A., and W. R. W. STEPHENS, M.A. Med. 8vo. 21s.
- (THEODORE) Life. By J. G. LOCKHART. Fcap. 8vo. 1s.
- HOPE (A. J. BERESFORD)**. Worship in the Church of England. 8vo, 9s.; or, *Popular Selections from*, 8vo, 2s. 6d.
- WORSHIP AND ORDER. 8vo. 9s.
- HOPE-SCOTT (JAMES)**, Memoir. [See ORNSBY.]
- HORACE**; a New Edition of the Text. Edited by DEAN MILMAN. With 100 Woodcuts. Crown 8vo. 7s. 6d.
- [See ETON.]
- HOUGHTON'S (LORD)** Monographs. Portraits. 10s. 6d.
- POETICAL WORKS. Portrait. 2 Vols. 12s.
- (ROBERT LORD) *Stray Verses*, 1889-90. Crown 8vo. 6s.

HOME AND COLONIAL LIBRARY. A Series of Works adapted for all circles and classes of Readers, having been selected for their acknowledged interest, and ability of the Authors. Post 8vo. Published at 2s. and 3s. 6d. each, and arranged under two distinctive heads as follows:—

CLASS A.

HISTORY, BIOGRAPHY, AND HISTORIC TALES.

- | | |
|--|---|
| SIEGE OF GIBRALTAR. By JOHN DRINKWATER. 2s. | THE WAYSIDE CROSS. By CAPT. MILMAN. 2s. |
| THE AMBER-WITCH. By LADY DUFF GORDON. 2s. | SKETCHES OF GERMAN LIFE. By SIR A. GORDON. 3s. 6d. |
| CROMWELL AND BUNYAN. By ROBERT SOUTHEY. 2s. | THE BATTLE OF WATERLOO. By REV. G. R. GLEIG. 3s. 6d. |
| LIFE OF SIR FRANCIS DRAKE. By JOHN BARROW. 2s. | AUTOBIOGRAPHY OF STEPHENS. 2s. |
| CAMPAIGNS AT WASHINGTON. By REV. G. R. GLEIG. 2s. | THE BRITISH POETS. By THOMAS CAMPBELL. 3s. 6d. |
| THE FRENCH IN ALGIERS. By LADY DUFF GORDON. 2s. | HISTORICAL ESSAYS. By LORD MAHON. 3s. 6d. |
| THE FALL OF THE JESUITS. 2s. | LIFE OF LORD CLIVE. By REV. G. R. GLEIG. 3s. 6d. |
| LIFE OF CONDÉ. By LORD MAHON. 3s. 6d. | NORTH WESTERN RAILWAY. By SIR F. B. HEAD. 2s. |
| SALE'S BRIGADE. By REV. G. R. GLEIG. 2s. | LIFE OF MUNRO. By REV. G. R. GLEIG. 3s. 6d. |
| THE SIEGES OF VIENNA. By LORD ELLESMERE. 2s. | |

CLASS B.

VOYAGES, TRAVELS, AND ADVENTURES.

- | | |
|--|---|
| <p>JOURNALS IN INDIA. By BISHOP HEBER. 2 Vols. 7s.
 TRAVELS IN THE HOLY LAND. By IRBY and MANGLES. 2s.
 MOROCCO AND THE MOORS. By J. DRUMMOND HAY. 2s.
 LETTERS FROM THE BALTIC. By A LADY. 2s.
 N. W. SOUTH WALES. By MRS. MEREDITH. 2s.
 THE WEST INDIES. By M. G. LEWIS. 2s.
 SKETCHES OF PERSIA. By SIR JOHN MALCOLM. 3s. 6d.
 MEMOIRS OF FATHER RIPA. 2s.
 TYPEE AND OMOO. By HERMANN MELVILLE. 2 Vols. 7s.
 MISSIONARY LIFE IN CANADA. By REV. J. ABBOTT. 2s.
 LETTERS FROM MADRAS. By A LADY. 2s.</p> | <p>HIGHLAND SPORTS. By CHARLES ST. JOHN. 3s. 6d.
 PAMPAS JOURNEYS. By F. B. HEAD. 2s.
 GATHERINGS FROM SPAIN. By RICHARD FORD. 3s. 6d.
 THE RIVER AMAZON. By W. H. EDWARDS. 2s.
 MANNERS & CUSTOMS OF INDIA. By REV. C. ACLAUD. 2s.
 ADVENTURES IN MEXICO. By G. F. RUXTON. 3s. 6d.
 PORTUGAL AND GALICIA. By LORD CARNARVON. 3s. 6d.
 BUSH LIFE IN AUSTRALIA. By REV. H. W. HAYGARTH. 2s.
 THE LIBYAN DESERT. By BAILE ST. JOHN. 2s.
 SIERRA LEONE. By A LADY. 3s. 6d.</p> |
|--|---|

*** Each work may be had separately.

- HUHN (A. Von). *The Struggle of the Bulgarians for National Independence: A History of the War between Bulgaria and Servia in 1885, under PRINCE ALEXANDER.* With Map. Crown 8vo. 9s.
- HUME (The Student's). *A History of England, from the Invasion of Julius Cæsar to the Revolution of 1688.* New Edition, revised, corrected, and continued to the Treaty of Berlin, 1878. By J. S. BREWER, M.A. With 7 Coloured Maps & 70 Woodcuts. Post 8vo. 7s. 6d.
 *** Sold also in 3 parts. Price 2s. 6d. each.
- HUNNEWELL (JAMES F.). *England's Chronicle in Stone; Derived from Personal Observations of the Cathedrals, Churches, Abbeys, Monasteries, Castles, and Palaces, made in Journeys through the Imperial Island.* With Illustrations. Medium 8vo. 24s.
- HUTCHINSON (GEN.). *Dog Breaking, with Odds and Ends for those who love the Dog and the Gun.* With 40 Illustrations. Crown 8vo. 7s. 6d. *** A Summary of the Rules for Gamekeepers. 1s.
- HUTTON (H. E.). *Principia Græca; an Introduction to the Study of Greek.* Comprehending Grammar, Delectus, and Exercise-book, with Vocabularies. *Sixth Edition.* 12mo. 2s. 6d.
- (JAMES). *James and Philip van Artevelde. Two remarkable Episodes in the Annals of Flanders: with a description of the state of Society in Flanders in the 14th Century.* Cr. 8vo. 10s. 6d.
- HYMNOLOGY, DICTIONARY OF. [See JULIAN.]
- ICELAND. [See COLES—DUFFERIN]
- INDIA. [See BROADFOOT—DUFFERIN—ELPHINSTONE—HAND-BOOK—SMITH—TEMPLE—MONIER WILLIAMS—LYALL.]
- IRBY AND MANGLES' *Travels in Egypt, Nubia, Syria, and the Holy Land.* Post 8vo. 2s.
- JAMES (F. L.). *The Wild Tribes of the Soudan: with an account of the route from Wady Halfa to Dongola and Berber.* With Chapter on the Soudan, by SIR S. BAKER. Illustrations. Crown 8vo. 7s. 6d.
- JAMESON (Mrs.). *Lives of the Early Italian Painters—and the Progress of Painting in Italy—Cimabue to Bassano.* With 50 Portraits. Post 8vo. 12s.

- JANNARIS (PROF. A. N.).** A Pocket Dictionary of the Modern Greek and English Languages, as actually Written and Spoken. Being a Copious Vocabulary of all Words and Expressions Current in Ordinary Reading and in Every-day Talk, with Especial Illustration by means of Distinctive Signs, of the Colloquial and Popular Greek Language, for the Guidance of Students and Travellers. Fcap. 8vo.
- JAPAN.** [See BIRD—HANDBOOK—REED.]
- KEENE (H. G.).** The Literature of France. 220 pp. Crown 8vo. 3s. (University Extension Manuals.)
- JENNINGS (L. J.).** Field Paths and Green Lanes: or Walks in Surrey and Sussex. Popular Edition. With Illustrations. Cr. 8vo. 6s. [See also CROKER.]
- JERVIS (REV. W. H.).** The Gallican Church, from the Concordat of Bologna, 1516, to the Revolution. With an Introduction. Portraits. 2 Vols. 8vo. 25s.
- JESSE (EDWARD).** Gleanings in Natural History. Fcp. 8vo. 3s. 6d.
- JOHNSON'S (DR. SAMUEL) Life.** [See BOSWELL.]
- JULIAN (REV. JOHN J.).** A Dictionary of Hymnology. A Companion to Existing Hymn Books. Setting forth the Origin and History of the Hymns contained in the Principal Hymnals, with Notices of their Authors, &c., &c. Medium 8vo. (1626 pp.) 42s.
- JUNIUS' HANDWRITING** Professionally investigated. Edited by the Hon. E. TWISLETON. With Facsimiles, Woodcuts, &c. 4to. £3 3s.
- KENDAL (MRS.)** Dramatic Opinions. Post 8vo. 1s.
- KERR (ROBT.).** The Consulting Architect: Practical Notes on Administrative Difficulties. Crown 8vo. 9s.
- KING EDWARD VITH'S Latin Grammar.** 12mo. 3s. 6d.
 ——— First Latin Book. 12mo. 2s. 6d.
- KIRKES' Handbook of Physiology.** Edited by W. MORRANT BAKER and V. D. HARRIS. With 500 Illustrations. Post 8vo. 14s.
- KNIGHT (PROF.).** The Philosophy of the Beautiful. Crown 8vo. 3s. 6d. (University Extension Manuals.)
- KUGLER'S HANDBOOK OF PAINTING.—The Italian Schools.** A New Edition, rev.-ed. By Sir HENRY LAYARD. With 200 Illustrations. 2 vols. Crown 8vo. 30s.
 ——— The German, Flemish, and Dutch Schools. New Edition revised. By Sir J. A. CROWE. With 60 Illustrations. 2 Vols. Crown 8vo. 24s.
- LANE (E. W.).** Account of the Manners and Customs of Modern Egyptians. With Illustrations. 2 Vols. Post 8vo. 12s.
- LAWLESS (HON. EMILY).** Major Lawrence, F.L.S.: a Novel. 3 Vols. Crown 8vo. 31s. 6d. Cheap Edition, 6s.
 ——— Plain Frances Mowbray, etc. Crown 8vo. 6s.
- LAYARD (SIR A. H.).** Nineveh and its Remains. With Illustrations. Post 8vo. 7s. 6d.
 ——— Nineveh and Babylon. Illusts. Post 8vo. 7s. 6d.
 ——— Early Adventures in Persia, Babylonia, and Susiana, including a residence among the Bakhtiyari and other wild tribes, before the discovery of Nineveh. Portrait, Illustrations and Maps. 2 Vols. Crown 8vo. 24s.
- LEATHES (STANLEY).** Practical Hebrew Grammar. With the Hebrew Text of Genesis i.—vi., and Psalms i.—vi. Grammatical Analysis and Vocabulary. Post 8vo. 7s. 6d.
- LENNEP (REV. H. J. VAN).** Travels in Asia Minor. With Illustrations of Biblical History and Archæology. 2 Vols. Post 8vo. 24s.
 ——— Modern Customs and Manners of Bible Lands, in Illustration of Scripture. Illustrations. 2 Vols. 8vo. 21s.

- LESLIE (C. R.).** Handbook for Young Painters. Illustrations. Post 8vo. 7s. 6d.
- LETO (POMPONIO).** Eight Months at Rome during the Vatican Council. 8vo. 12s.
- LETTERS FROM THE BALTIC.** By LADY EASTLAKE. Post 8vo. 2s.
- **MADRAS.** By MRS. MAITLAND. Post 8vo. 2s.
- **SIERRA LEONE.** By MRS. MELVILLE. 3s. 6d.
- LEVI (LEONE).** History of British Commerce; and Economic Progress of the Nation, from 1763 to 1878. 8vo. 18s.
- **The Wages and Earnings of the Working Classes in 1883-4.** 8vo. 3s. 6d.
- LEWIS (T. HAYTER).** The Holy Places of Jerusalem. Illustrations. 8vo. 10s. 6d.
- LEX SALICA; the Ten Texts with the Glosses and the Lex Emendata.** Synoptically edited by J. H. HERSKELS. With Notes on the Frankish Words in the Lex Salica by H. KERN, of Leyden. 4to. 42s.
- LIDDELL (DEAN).** Student's History of Rome, from the earliest Times to the establishment of the Empire. Woodcuts. Post 8vo. 7s. 6d.
- LIND (JENNY), THE ARTIST, 1820—1851.** Her early Art-life and Dramatic Career. From Original Documents, Letters, Diaries, &c., in the possession of MR. GOLDSCHMIDT. By Canon H. SCOTT HOLLAND, M.A., and W. S. ROCKSTRO. With Portraits, Illustrations, and Appendix of Music. 2 Vols. 8vo. 32s.
- LINDSAY (LORD).** Sketches of the History of Christian Art. 2 Vols. Crown 8vo. 24s.
- LISPINGS from LOW LATITUDES; or, the Journal of the Hon. Impulsia Gushington.** Edited by LORD DUFFERIN. With 24 Plates. 4to. 21s.
- LIVINGSTONE (DR.).** First Expedition to Africa, 1840-56. Illustrations. Post 8vo. 7s. 6d.
- **Second Expedition to Africa, 1858-64.** Illustrations. Post 8vo. 7s. 6d.
- **Last Journals in Central Africa, to his Death.** By Rev. HORACE WALLER. Maps and Illustrations. 2 Vols. 8vo. 15s.
- **Personal Life.** By Wm. G. Blaikie, D.D. With Map and Portrait. 8vo. 6s.
- LOCKHART (J. G.).** Ancient Spanish Ballads. Historical and Romantic. Translated, with Notes. Illustrations. Crown 8vo. 5s.
- **Life of Theodore Hook.** Fcap. 8vo. 1s.
- LONDON: Past and Present; its History, Associations, and Traditions.** By HENRY B. WHEATLEY, F.S.A. Based on Cunningham's Handbook. Library Edition, on Laid Paper 3 Vols. Medium 8vo. 3l. 3s.
- LOUDON (MRS.).** Gardening for Ladies. With Directions and Calendar of Operations for Every Month. Woodcuts. Fcap. 8vo. 3s. 6d.
- LUMHOLTZ (DR. C.).** Among Cannibals; An Account of Four Years' Travels in Australia, and of Camp Life among the Aborigines of Queensland. With Maps and 120 Illustrations. Medium 8vo. 24s.
- LUTHER (MARTIN).** The First Principles of the Reformation, or the Three Primary Works of Dr. Martin Luther. Portrait. 8vo. 12s.
- LYALL (SIR ALFRED C.), K.C.B.** Asiatic Studies; Religious and Social. 8vo. 12s.
- LYELL (SIR CHARLES).** Student's Elements of Geology. A new Edition, entirely revised by PROFESSOR P. M. DUNCAN, F.R.S. With (0) Illustrations. Post 8vo. 9s.
- **Life, Letters, and Journals.** Edited by his sister-in-law, MRS. LYELL. With Portraits. 2 Vols. 8vo. 30s.

- LYNDHURST (LORD).** [See MARTIN.]
- McCLINTOCK (SIR L.).** Narrative of the Discovery of the Fate of Sir John Franklin and his Companions in the Arctic Sea. With Illustrations. Post 8vo. 7s. 6d.
- MACDONALD (A.).** Too Late for Gordon and Khartoum. With Maps and Plans. 8vo. 12s.
- MACGREGOR (J.).** Rob Roy on the Jordan, Nile, Red Sea, Genesareth, &c. A Canoe Cruise in Palestine and Egypt and the Waters of Damascus. With 70 Illustrations. Crown 8vo. 7s. 6d.
- MACKAY (THOMAS).** The English Poor. A Sketch of their Social and Economic History; and an attempt to estimate the influence of private property on character and habit. Crown 8vo. 7s. 6d.
- A Plea for Liberty: an Argument against Socialism and Socialistic Legislation. Essays by various Writers. With an Introduction by HERBERT SPENCER. *Third and Popular Edition.* With a New and Original Essay on Self Help and State Pensions by C. J. RADLEY. Post 8vo. 2s.
- MAHON (LORD).** [See STANHOPE.]
- MAINE (SIR H. SUMNER).** Ancient Law: its Connection with the Early History of Society, and its Relation to Modern Ideas. 8vo. 9s.
- Village Communities in the East and West. 8vo. 9s.
- Early History of Institutions. 8vo. 9s.
- Dissertations on Early Law and Custom. 8vo. 9s.
- Popular Government. 8vo. 7s. 6d.
- International Law. 8vo. 7s. 6d.
- MALCOLM (SIR JOHN).** Sketches of Persia. Post 8vo. 3s. 6d.
- MARCO POLO.** [See YULE.]
- MARKHAM (MRS.).** History of England. From the First Invasion by the Romans, continued down to 1880. Woodcuts. 12mo. 3s. 6d.
- History of France. From the Conquest of Gaul by Julius Cæsar, continued down to 1878. Woodcuts. 12mo. 3s. 6d.
- History of Germany. From its Invasion by Marius to the completion of Cologne Cathedral. Woodcuts. 12mo. 3s. 6d.
- (CLEMENS R.). A Popular Account of Peruvian Bark and its introduction into British India. With Maps. Post 8vo. 14s.
- MARSH (G. P.).** Student's Manual of the English Language. Edited with Additions. By DR. WM. SMITH. Post 8vo. 7s. 6d.
- MARTIN (SIR THEODORE).** Life of Lord Lyndhurst. With Portraits. 8vo. 16s.
- MASTERS** in English Theology. Lectures by Eminent Divines. With Introduction by Canon Barry. Post 8vo. 7s. 6d.
- MATTHIÆ'S GREEK GRAMMAR.** Abridged by BLOMFIELD. Revised by E. S. CROOKE. 12mo. 4s.
- MAUREL'S** Character, Actions, &c., of Wellington. 1s. 6d.
- MELVILLE (HERMANN).** Marquesas and South Sea Islands. 2 Vols. Post 8vo. 7s.
- MEREDITH (MRS. C.)** Notes & Sketches of N. S. Wales. Post 8vo. 2s.
- MEXICO.** [See BROCKLEHURST—RUXTON.]
- MICHAEL ANGELO,** Sculptor, Painter, and Architect. His Life and Works. By C. HEATH WILSON. Illustrations. 8vo. 15s.
- MILL (DR. H. R.)** The Realm of Nature: An Outline of Physiography. With 19 Coloured Maps and 68 Illustrations and Diagrams (380 pp.). Crown 8vo. 5s. (University Extension Manuals.)
- MILLER (WM.).** A Dictionary of English Names of Plants applied among English-speaking People to Plants, Trees, and Shrubs. In Two Parts. Latin-English and English-Latin. Medium 8vo. 12s.

MILMAN'S (DEAN) WORKS:—

HISTORY OF THE JEWS, from the earliest Period down to Modern Times. 3 Vols. Post 8vo. 12s.

EARLY CHRISTIANITY, from the Birth of Christ to the Abolition of Paganism in the Roman Empire. 3 Vols. Post 8vo. 12s.

LATIN CHRISTIANITY, including that of the Popes to the Pontificate of Nicholas V. 9 Vols. Post 8vo. 36s.

HANDBOOK TO ST. PAUL'S CATHEDRAL. Woodcuts. 10s. 6d.

QUINTI HORATII FLACCI OPERA. Woodcuts. Sm. 8vo. 7s. 6d.

FALL OF JERUSALEM. Fcap. 8vo. 1s.

— (BISHOP, D.D.) **Life**. With a Selection from his Correspondence and Journals. By his Sister. Map. 8vo. 12s.

MILNE (DAVID, M.A.). A Readable Dictionary of the English Language. Etymologically arranged. Crown 8vo. 7s. 6d.

MINCHIN (J. G.). The Growth of Freedom in the Balkan Peninsula. With a Map. Crown 8vo. 10s. 6d.

MISS BLAKE OF MONKSHALTON. By ISABELLA FORD. A New Novel. Crown 8vo. 5s.

MIVART (ST. GEORGE). Lessons from Nature; as manifested in Mind and Matter. 8vo. 15s.

— **The Cat**. An Introduction to the Study of Backboned Animals, especially Mammals. With 200 Illustrations. Medium 8vo. 30s.

MOGGRIDGE (M. W.). Method in Almsgiving. A Handbook for Helpers. Post 8vo. 3s. 6d.

MOORE (THOMAS). Life and Letters of Lord Byron. [See BYRON.]

MORELLI (GIOVANNI). Italian Painters. Critical Studies of their Works. The Borghese and Doria Pamphili Galleries in Rome. Translated from the German by CONSTANCE JOCELYN FFOULKES, with an Introductory Notice by Sir HENRY LAYARD, G.C.B.

MOSELEY (PROF. H. N.). Notes by a Naturalist on the "Challenger." Being an account of various observations made during the voyage of H.M.S. "Challenger" round the World in the years 1872-76, under the command of Captain Sir G. S. Nares R.N., K.C.B., F.R.S., and Captain F. T. Thomson, R.N. A New and Cheaper Edit., with Portrait, numerous Woodcuts. Crown 8vo.

MOTLEY (JOHN LOTHROP). The Correspondence of. With Portrait. 2 Vols. 8vo. 30s.

— **History of the United Netherlands: from the Death of William the Silent to the Twelve Years' Truce, 1609**. Portraits. 4 Vols. Post 8vo. 6s. each.

— **Life and Death of John of Barneveld**. Illustrations. 2 Vols. Post 8vo. 12s.

MUIRHEAD (JOHN H.). The Elements of Ethics. (University Extension Series.)

MUMMERY (A. F.) AND J. A. HOBSON. The Physiology of Industry: Being an Exposure of certain Fallacies in existing Theories of Political Economy. Crown 8vo. 6s.

MUNRO'S (GENERAL) Life. By REV. G. R. GLEIG. 3s. 6d.

MUNTZE (AXEL). Letters from a Mourning City. Naples during the Autumn of 1884. Translated by MAUDE VALERIE WHITE. With a Frontispiece. Crown 8vo. 6s.

MURCHISON (SIR RODERICK). And his Contemporaries. By ARCHIBALD GRIKIE. Portraits. 2 Vols. 8vo. 30s.

MURRAY (JOHN). A Publisher and his Friends: Memoir and Correspondence of the late John Murray, with an Account of the Origin and Progress of the House, 1768—1843. By SAMUEL SMILES, LL.D. With Portraits. 2 Vols. 8vo. 32s.

- MURRAY (A. S.).** A History of Greek Sculpture from the Earliest Times. With 130 Illustrations. 2 Vols. Medium 8vo. 36s.
 ———— Handbook of Greek Archæology. Sculpture, Vases, Bronzes, Gems, Ter a-co'tas, Architecture. Mural Paintings, &c. Many Illustrations. Crown 8vo.
- MURRAY'S MAGAZINE.** Vol. I. to Vol. VIII. 8vo. 7s. 6d. each.
- NADAILLAC (MARQUIS DE).** Prehistoric America. Translated by N. D'ANVERS. With Illustrations. 8vo. 16s.
- NAPIER (GENERAL SIR CHARLES).** His Life. By the Hon. WM. NAPIER BRUCE. With Portrait and Maps. Crown 8vo. 12s.
 ———— (GENERAL SIR GEORGE T.). Passages in his Early Military Life written by himself. Edited by his Son, GENERAL WM. C. E. NAPIER. With Portrait. Crown 8vo. 7s. 6d.
 ———— (SIR WM.). English Battles and Sieges of the Peninsular War. Portrait. Post 8vo. 5s.
- NASMYTH (JAMES).** An Autobiography. Edited by Samuel Smiles, LL.D., with Portrait, and 70 Illustrations. Post 8vo, 6s.; or Large Paper, 16s.
 ———— The Moon: Considered as a Planet, a World, and a Satellite. With 26 Plates and numerous Woodcuts. Medium 8vo. 21s.
- NEWMAN (MRS.).** Begun in Jest. A New Novel. 3 vols. Crown 8vo. 31s. 6d.
- NEW TESTAMENT.** With Short Explanatory Commentary. By ARCHDEACON CHURTON, M.A., and the BISHOP OF ST. DAVID'S. With 110 authentic Views, &c. 2 Vols. Crown 8vo. 21s. bound.
- NEWTN (SAMUEL).** First Book of Natural Philosophy; an Introduction to the Study of Statics, Dynamics, Hydrostatics, Light, Heat, and Sound, with numerous Examples. Small 8vo. 3s. 6d.
 ———— Elements of Mechanics, including Hydrostatics, with numerous Examples. Small 8vo. 8s. 6d.
 ———— Mathematical Examples. A Graduated Series of Elementary Examples in Arithmetic, Algebra, Logarithms, Trigonometry, and Mechanics. Small 8vo. 8s. 6d.
- NIMROD,** On the Chace—Turf—and Road. With Portrait and Plates. Crown 8vo. 5s. Or with Coloured Plates, 7s. 6d.
- NORRIS (W. E.).** Marcia. A Novel. Crown 8vo. 6s.
- NORTHCOTE'S (SIR JOHN)** Notebook in the Long Parliament. Containing Proceedings during its First Session, 1640. Edited, with a Memoir, by A. H. A. Hamilton. Crown 8vo. 9s.
- OCEAN STEAMSHIPS:** A Popular Account of their Construction, Development, Management and Appliances. By Various Writers. Beautifully Illustrated, with 96 Woodcuts, Maps, &c. Medium 8vo. 12s.
- O'CONNELL (DANIEL).** [See FITZPATRICK.]
- ORNSBY (PROF. R.).** Memoirs of J. Hope Scott, Q.C. (of Abbotsford). 2 vols. 8vo. 24s.
- OTTER (R. H.).** Winters Abroad: Some Information respecting Places visited by the Author on account of his Health. 7s. 6d.
- OVID LESSONS.** [See ETON.]
- OWEN (LIEUT.-COL.).** Principles and Practice of Modern Artillery. With Illustrations. 8vo. 15s.
- OXENHAM (REV. W.).** English Notes for Latin Elegiacs; with Prefatory Rules of Composition in Elegiac Metre. 12mo. 3s. 6d.
- PAGET (LORD GEORGE).** The Light Cavalry Brigade in the Crimea. Map. Crown 8vo. 10s. 6d.
- PALGRAVE (R. H. I.).** Local Taxation of Great Britain and Ireland. 8vo. 5s.

- PALLISER (MRS.).** Mottoes for Monuments, or Epitaphs selected for General Use and Study. With Illustrations. Crown 8vo. 7s. 6d.
- PARIS (DR.).** Philosophy in Sport made Science in Earnest; or, the First Principles of Natural Philosophy inculcated by aid of the Toys and Sports of Youth. Woodcuts. Post 8vo. 7s. 6d.
- PARKER (C. S.), M.P.** [See PEEL.]
- PEEL'S (SIR ROBERT) Memoirs.** 2 Vols. Post 8vo. 15s.
- Life of: Early years; as Secretary for Ireland, 1812-18, and Secretary of State, 1822-27. Published by his Trustees, Viscount Hardinge and Right Hon. Arthur Wellesley Peel. Edited by CHARLES STUART PARKER, M.P. With Portrait. 8vo. 13s.
- PENN (RICHARD).** Maxims and Hints for an Angler and Chess-player. Woodcuts. Fcap. 8vo. 1s.
- PERCY (JOHN, M.D.). METALLURGY.** Fuel, Wood, Peat, Coal, Charcoal, Coke, Fire-Clays. Illustrations. 8vo. 30s.
- Lead, including part of Silver. Illustrations. 8vo. 30s.
- Silver and Gold. Part I. Illustrations. 8vo. 30s.
- Iron and Steel. A New and Revised Edition, with the Author's Latest Corrections, and brought down to the present time. By H. BAUERMAN, F.G.S. Illustrations. 8vo.
- PERRY (REV. CANON).** History of the English Church. See STUDENTS' MANUALS.
- PHILLIPS (SAMUEL).** Literary Essays from "The Times." With Portrait. 2 Vols. Fcap. 8vo. 7s.
- POLLOCK (C. E.).** A Book of Family Prayers. Selected from the Liturgy of the Church of England. 16mo. 3s. 6d.
- POPE'S (ALEXANDER) Life and Works.** With Introductions and Notes, by J. W. CROKER, REV. W. ELWIN, and W. J. COURTHORPE. 10 Vols. With Portraits. 8vo. 10s. 6d. each.
- PORTER (REV. J. L.).** Damascus, Palmyra, and Lebanon. Map and Woodcuts. Post 8vo. 7s. 6d.
- PRAYER-BOOK (BEAUTIFULLY ILLUSTRATED).** With Notes, by REV. THOS. JAMES. Medium 8vo. 18s. cloth.
- PRINCESS CHARLOTTE OF WALES.** Memoir and Correspondence. By LADY ROSE WEIGALL. With Portrait. 8vo. 8s. 6d.
- PRITCHARD (CHARLES, D.D.).** Occasional Thoughts of an Astronomer on Nature and Revelation. 8vo. 7s. 6d.
- PSALMS OF DAVID.** With Notes Explanatory and Critical by Dean Johnson, Canon Elliott, and Canon Cook. Medium 8vo. 10s. 6d.
- PUSS IN BOOTS.** With 12 Illustrations. By OTTO SPECKTER. 16mo. 1s. 6d. Or coloured, 2s. 6d.
- QUARTERLY REVIEW (THE).** 8vo. 6s.
- RAE (EDWARD).** Country of the Moors. A Journey from Tripoli to the Holy City of Kairwan. Etchings. Crown 8vo. 12s.
- The White Sea Peninsula. Journey to the White Sea, and the Kola Peninsula. Illustrations. Crown 8vo. 15s.
- (GEORGE). The Country Banker; His Clients, Cares, and Work, from the Experience of Forty Years. Crown 8vo. 7s. 6d.
- RAMSAY (PROF. W. M.).** The Historical Geography of Asia Minor. With 6 Maps, Tables, &c. 8vo. 18s.
- RASSAM (HORMUZD).** British Mission to Abyssinia. Illustrations. 2 Vols. 8vo. 28s.
- RAWLINSON'S (CANON) Five Great Monarchies of Chaldæa, Assyria, Media, Babylonia, and Persia.** With Maps and Illustrations. 3 Vols. 8vo. 42s.
- Herodotus, a new English Version. See page 12.

- RAWLINSON'S (SIR HENRY) England and Russia in the East ; a Series of Papers on the Condition of Central Asia.** Map. 8vo. 12s.
- REJECTED ADDRESSES (THE).** BY JAMES AND HORACE SMITH. Woodcuts. Post 8vo. 3s. 6d.; or *Popular Edition*, Fcap. 8vo. 1s.
- RICARDO'S (DAVID) Works.** With a Notice of his Life and Writings. By J. R. McCULLOCH. 8vo. 16s.
- RIPA (FATHER).** Residence at the Court of Peking. Post 8vo. 2s.
- ROBERTSON (CANON).** History of the Christian Church, from the Apostolic Age to the Reformation, 1517. 8 Vols. Post 8vo. 6s. each.
- ROBINSON (W.). English Flower Garden.** An Illustrated Dictionary of all the Plants used, and Directions for their Culture and Arrangement. With numerous Illustrations. Medium 8vo. 15s.
- **The Vegetable Garden ; or, the Edible Vegetables, Salads, and Herbs cultivated in Europe and America.** By M. VILMORIN-ANDRIEUX. With 750 Illustrations. 8vo. 15s.
- **Sub-Tropical Garden.** Illustrations. Small 8vo. 5s.
- **Parks and Gardens of Paris, considered in Relation to other Cities.** 350 Illustrations. 8vo. 18s.
- **Wild Garden ; or, Our Groves and Gardens made Beautiful by the Naturalization of Hardy Exotic Plants.** With 90 Illustrations. 8vo. 10s. 6d.
- **God's Acre Beautiful ; or, the Cemeteries of the Future.** With 8 Illustrations. 8vo. 7s. 6d.
- ROMANS, St. Paul's Epistle to the.** With Notes and Commentary by E. H. GIFFORD, D.D. Medium 8vo. 7s. 6d.
- ROME (HISTORY OF).** [See GIBBON—INGE—LIDDELL—SMITH—STUDENTS']
- ROMILLY (HUGH H.). The Western Pacific and New Guinea.** 2nd Edition. With a Map. Crown 8vo. 7s. 6d.
- ROSS (MRS.) The Land of Manfred, Prince of Tarentum and King of Sicily: Rambles in remote parts of S. Italy, with special reference to their Historical associations.** Illustrations. Crown 8vo. 10s. 6d.
- RUMBOLD (SIR HORACE).** The Great Silver River: Notes of a Residence in the Argentine Republic. Second Edition, with Additional Chapter. With Illustrations. 8vo. 17s.
- RUXTON (GEO. F.). Travels in Mexico; with Adventures among Wild Tribes and Animals of the Prairies and Rocky Mountains.** Post 8vo. 3s. 6d.
- ST. JOHN (CHARLES).** Wild Sports and Natural History of the Highlands of Scotland. Illustrated Edition. Crown 8vo. 15s. *Cheap Edition*, Post 8vo. 3s. 6d.
- (BAYLE). **Adventures in the Libyan Desert.** Post 8vo. 2s.
- ST. MAUR (MRS. ALGERNON), LADY SEYMOUR.** Impressions of a Tenderfoot, during a Journey in search of Sport in the Far West. With Map and Illustrations. Crown 8vo. 12s.
- SALES (SIR ROBERT) Brigade in Affghanistan.** With an Account of the Defence of Jellalabad. By REV. G. R. GLEIG. Post 8vo. 2s.
- SALMON (PROF. GEO., D.D.). An Introduction to the Study of the New Testament, and an Investigation into Modern Biblical Criticism, based on the most recent Sources of Information.** Crown 8vo. 9s.
- **Lectures on the Infallibility of the Church.** Post 8vo. 9s.

- SCEPTICISM IN GEOLOGY; and the Reasons for it.** An assemblage of facts from Nature combining to refute the theory of "Causes now in Action." By VERIFIER. Woodcuts. Crown 8vo. 6s.
- SCHARF (GEORGE).** Authentic Portraits of Mary, Queen of Scots. An attempt to distinguish those to be relied upon from others indiscriminately bearing her name, and to dispel the confused ideas that have so long prevailed respecting her personal appearance. With Illustrations. Large 8vo.
- SCHLIEMANN (DR. HENRY).** Ancient Mycenæ. Illustrations. Medium 8vo. 50s.
- Ilios; the City and Country of the Trojans, With an Autobiography. Illustrations. Imperial 8vo. 50s.
- Troja: Results of the Latest Researches and Discoveries on the site of Homer's Troy, and other sites made in 1892. Illustrations. Medium 8vo. 42s.
- Tiryns: A Prehistoric Palace of the Kings of Tiryns, discovered by excavations in 1884-5. With Illustrations. Medium 8vo. 42s.
- SCHREIBER (LADY CHARLOTTE).** English Fans and Fan Leaves. Collected and Described. With 160 Plates. Folio. 7l. 7s.
- Foreign Fans and Fan Leaves. French, Italian, and German, chiefly relating to the French Revolution, Collected and Described. 150 Plates. Folio. 7l. 7s.
- SCOTT (SIR GILBERT).** The Rise and Development of Mediæval Architecture. With 400 Illustrations. 2 Vols. Medium 8vo. 42s.
- SHAIRP (PRINCIPAL) AND HIS FRIENDS,** By Professor WM. KNIGHT, of St. Andrews. With Portrait. 8vo. 15s.
- SHAW (T. B.).** Manual of English Literature. Post 8vo. 7s. 6d.
- Specimens of English Literature. Post 8vo. 5s.
- (ROBERT). Visit to High Tartary, Yarkand, and Kashgar. With Map and Illustrations. 8vo. 16s.
- SMILES' (SAMUEL, LL.D.) WORKS:—**
- BRITISH ENGINEERS; from the Earliest Period to the Death of the Stephenson.** Illustrations. 5 Vols. Crown 8vo. 7s. 6s. each.
- GEORGE STEPHENSON.** Post 8vo. 2s. 6d.
- JAMES NASMYTH.** Portrait and Illustrations. Post 8vo. 6s.
- JASMIN: Barber, Poet, Philanthropist.** Post 8vo. 6s.
- SCOTCH NATURALIST (THOS. EDWARD).** Illustrations. Post 8vo. 6s.
- SCOTCH GEOLOGIST (ROBERT DICK).** Illustrations. 8vo. 12s.
- SELF-HELP.** With Illustrations of Conduct and Perseverance. Post 8vo. 6s.
- In French. 5s.
- CHARACTER.** A Book of Noble Characteristics. Post 8vo. 6s.
- THRIFT.** A Book of Domestic Counsel. Post 8vo. 6s.
- DUTY.** With Illustrations of Courage, Patience, and Endurance. Post 8vo. 6s.
- INDUSTRIAL BIOGRAPHY.** Iron-Workers and Tool-Makers. 6s.
- MEN OF INVENTION.** Post 8vo. 6s.
- LIFE AND LABOUR; or, Characteristics of Men of Culture and Genius.** Post 8vo. 6s.
- THE HUGUENOTS; Their Settlements, Churches, and Industries in England and Ireland.** Crown 8vo. 7s. 6d.
- BOY'S VOYAGE ROUND THE WORLD.** Illustrations. Post 8vo. 6s.

SIEMENS (SIR WM.), C.E. Life of. By WM. POLE, C.E. Portraits. 8vo. 16s.

— The Scientific Works of: a Collection of Papers and Discourses. Edited by E. F. BAMBER, C.E. Vol. i.—Heat and Metallurgy: ii.—Electricity, &c.; iii.—Addresses and Lectures. Plates. 3 Vols. 8vo. 12s. each.

— (DR. WERNER VON). Collected Works of. Translated by E. F. BAMBER. Vol. i.—Scientific Papers and Addresses. ii.—Applied Science. With Illustrations. 8vo.

SIERRA LEONE. By MRS. MELVILLE. Post 8vo. 3s. 6d.

SIMMONS' Constitution and Practice of Courts-Martial. 15s.

SMEDES (SUSAN DABNEY). A Southern Planter. Memoirs of Thomas Dabney. Preface by MR. GLADSTONE. Post 8vo. 7s. 6d.

SMITH (DR. GEORGE) Student's Manual of the Geography of British India, Physical and Political. Maps. Post 8vo. 7s. 6d.

— Life of Dr. Somerville of Glasgow, late Evangelist in India, Africa, Australia, Canada, and Chief Countries of Europe (1813—1889). Portrait. Post 8vo. 9s.

— Life of Wm. Carey, D.D., 1761—1834. Shoemaker and Missionary. Professor of Sanscrit, Bengalee and Marahée at the College of Fort William, Calcutta. Illustrations. Post 8vo. 7s. 6d.

— Life of Stephen Hislop, Pioneer, Missionary, and Naturalist in Central India, 1844—1863. Portrait. Post 8vo. 7s. 6d.

— (PHILIP). History of the Ancient World, from the Creation to the Fall of the Roman Empire, A.D. 476. 3 Vols. 8vo. 31s. 6d.

— (R. BOSWORTH). Mohammed and Mohammedanism. Crown 8vo. 7s. 6d.

SMITH'S (DR. WM.) DICTIONARIES:—

DICTIONARY OF THE BIBLE; its Antiquities, Biography, Geography, and Natural History. Illustrations. 3 Vols. 8vo. 105s.

CONCISE BIBLE DICTIONARY. Illustrations. 8vo. 21s.

SMALLER BIBLE DICTIONARY. Illustrations. Post 8vo. 7s. 6d.

CHRISTIAN ANTIQUITIES. Comprising the History, Institutions, and Antiquities of the Christian Church. Illustrations. 2 Vols. Medium 8vo. 3l. 13s. 6d.

CHRISTIAN BIOGRAPHY, LITERATURE, SECTS, AND DOCTRINES; from the Times of the Apostles to the Age of Charlemagne. Medium 8vo. Now complete in 4 Vols. 6l. 16s. 6d.

GREEK AND ROMAN ANTIQUITIES. Including the Laws, Institutions, Domestic Usages, Painting, Sculpture, Music, the Drama, &c. Third Edition, Revised and Enlarged. 2 Vols. Med. 8vo. 31s. 6d. each.

GREEK AND ROMAN BIOGRAPHY AND MYTHOLOGY. Illustrations. 3 Vols. Medium 8vo. 4l. 4s.

GREEK AND ROMAN GEOGRAPHY. 2 Vols. Illustrations. Medium 8vo. 56s.

ATLAS OF ANCIENT GEOGRAPHY—BIBLICAL AND CLASSICAL. Folio. 6l. 6s.

CLASSICAL DICTIONARY OF MYTHOLOGY, BIOGRAPHY, AND GEOGRAPHY. 1 Vol. With 750 Woodcuts. 8vo. 18s.

SMALLER CLASSICAL DICTIONARY. Woodcuts. Crown 8vo. 7s. 6d.

SMALLER DICTIONARY OF GREEK AND ROMAN ANTIQUITIES. Woodcuts. Crown 8vo. 7s. 6d.

COMPLETE LATIN-ENGLISH DICTIONARY. With Tables of the Roman Calendar, Measures, Weights, Money, and a Dictionary of Proper Names. 8vo. 16s.

SMALLER LATIN-ENGLISH DICTIONARY. 12mo. 7s. 6d.

SMITH'S (DR. WM.) DICTIONARIES—continued.

COPIOUS AND CRITICAL ENGLISH-LATIN DICTIONARY. 8vo. 16s.

SMALLER ENGLISH-LATIN DICTIONARY. 12mo. 7s. 6d.

SMITH'S (DR. WM.) ENGLISH COURSE:—

SCHOOL MANUAL OF ENGLISH GRAMMAR, WITH COPIOUS EXERCISES, Appendices and Index. Post 8vo. 3s. 6d.

PRIMARY ENGLISH GRAMMAR, for Elementary Schools, with carefully graduated Parsing Lessons. 16mo. 1s.

MANUAL OF ENGLISH COMPOSITION. With Copious Illustrations and Practical Exercises. 12mo. 3s. 6d.

PRIMARY HISTORY OF BRITAIN. 12mo. 2s. 6d.

SCHOOL MANUAL OF MODERN GEOGRAPHY. Post 8vo. 5s.

A SMALLER MANUAL OF MODERN GEOGRAPHY. 16mo. 2s. 6d.

SMITH'S (DR. WM.) FRENCH COURSE:—

FRENCH PRINCIPIA. Part I. A First Course, containing a Grammar, Delectus, Exercises, and Vocabularies. 12mo. 3s. 6d.

APPENDIX TO FRENCH PRINCIPIA. Part I. Containing additional Exercises, with Examination Papers. 12mo. 2s. 6d.

FRENCH PRINCIPIA. Part II. A Reading Book, containing Fables, Stories, and Anecdotes, Natural History, and Scenes from the History of France. With Grammatical Questions, Notes and copious Etymological Dictionary. 12mo. 4s. 6d.

FRENCH PRINCIPIA. Part III. Prose Composition, containing Hints on Translation of English into French, the Principal Rules of the French Syntax compared with the English, and a Systematic Course of Exercises on the Syntax. 12mo. 4s. 6d. [Post 8vo. 6s.]

STUDENT'S FRENCH GRAMMAR. With Introduction by M. Littré.

SMALLER GRAMMAR OF THE FRENCH LANGUAGE. Abridged from the above. 12mo. 3s. 6d.

SMITH'S (DR. WM.) GERMAN COURSE:—

GERMAN PRINCIPIA. Part I. A First German Course, containing a Grammar, Delectus, Exercise Book, and Vocabularies. 12mo. 3s. 6d.

GERMAN PRINCIPIA. Part II. A Reading Book; containing Fables, Anecdotes, Natural History, and Scenes from the History of Germany. With Questions, Notes, and Dictionary. 12mo. 3s. 6d.

PRACTICAL GERMAN GRAMMAR. Post 8vo. 3s. 6d.

SMITH'S (DR. WM.) ITALIAN COURSE:—

ITALIAN PRINCIPIA. Part I. An Italian Course, containing a Grammar, Delectus, Exercise Book, with Vocabularies, and Materials for Italian Conversation. 12mo. 3s. 6d.

ITALIAN PRINCIPIA. Part II. A First Italian Reading Book, containing Fables, Anecdotes, History, and Passages from the best Italian Authors, with Grammatical Questions, Notes, and a Copious Etymological Dictionary. 12mo. 3s. 6d.

SMITH'S (DR. WM.) YOUNG BEGINNER'S FIRST LATIN COURSE (for Children).

I. A FIRST LATIN BOOK. The Rudiments of Grammar, Easy Grammatical Questions and Exercises with Vocabularies. 12mo. 2s.

II. A SECOND LATIN BOOK. An Easy Latin Reading Book, with an Analysis of the Sentences, Notes, and a Dictionary. 12mo. 2s.

III. A THIRD LATIN BOOK. The Principal Rules of Syntax, with Easy Exercises, Questions, Vocabularies, and an English-Latin Dictionary. 2s.

IV. A FOURTH LATIN BOOK. A Latin Vocabulary for Beginners. Arranged according to Subjects and Etymologies. 12mo. 2s.

SMITH'S (DR. WM.) LATIN COURSE.

- PRINCIPIA LATINA. Part I. First Latin Course, containing a Grammar, Delectus, and Exercise Book, with Vocabularies.** 12mo. 3s. 6d.
 * * * In this Edition the Cases of the Nouns, Adjectives, and Pronouns are arranged both as in the ORDINARY GRAMMARS and as in the PUBLIC SCHOOL PRIMER, together with the corresponding Exercises.
- APPENDIX TO PRINCIPIA LATINA. Part I.; being Additional Exercises, with Examination Papers.** 12mo. 2s. 6d.
- PRINCIPIA LATINA. Part II. A Reading-book of Mythology, Geography, Roman Antiquities, and History. With Notes and Dictionary.** 12mo. 3s. 6d.
- PRINCIPIA LATINA. Part III. A Poetry Book. Hexameters and Pentameters; Eclog. Ovidianæ; Latin Prosody.** 12mo. 3s. 6d.
- PRINCIPIA LATINA. Part IV. Prose Composition. Rules of Syntax, with Examples, Explanations of Synonyms, and Exercises on the Syntax.** 12mo. 3s. 6d.
- PRINCIPIA LATINA. Part V. Short Tales and Anecdotes for Translation into Latin. A New and Enlarged Edition.** 12mo. 3s. 6d.
- LATIN-ENGLISH VOCABULARY AND FIRST LATIN-ENGLISH DICTIONARY FOR PHÆDRUS, CORNELIUS NEPOS, AND CÆSAR.** 12mo. 3s. 6d.
- STUDENT'S LATIN GRAMMAR. For the Higher Forms. A new and thoroughly revised Edition.** Post 8vo. 6s.
- SMALLER LATIN GRAMMAR. New Edition.** 12mo. 3s. 6d.

SMITH'S (DR. WM.) GREEK COURSE:—

- INITIA GRÆCA. Part I. A First Greek Course, containing a Grammar, Delectus, and Exercise-book. With Vocabularies.** 12mo. 3s. 6d.
- APPENDIX TO INITIA GRÆCA. Part I. Containing additional Exercises. With Examination Papers.** Post 8vo. 2s. 6d.
- INITIA GRÆCA. Part II. A Reading Book. Containing Short Tales, Anecdotes, Fables, Mythology, and Grecian History.** 12mo. 3s. 6d.
- INITIA GRÆCA. Part III. Prose Composition. Containing the Rules of Syntax, with copious Examples and Exercises.** 12mo. 3s. 6d.
- STUDENT'S GREEK GRAMMAR. For the Higher Forms.** Post 8vo. 6s.
- SMALLER GREEK GRAMMAR.** 12mo. 3s. 6d.
- GREEK ACCIDENCE.** 12mo. 2s. 6d.
- PLATO, Apology of Socrates, &c. With Notes.** 12mo. 3s. 6d.

SMITH'S (DR. WM.) SMALLER HISTORIES:—

- SCRIPTURE HISTORY. Maps and Woodcuts.** 16mo. 3s. 6d.
- ANCIENT HISTORY. Woodcuts.** 16mo. 3s. 6d.
- ANCIENT GEOGRAPHY. Woodcuts.** 16mo. 3s. 6d.
- MODERN GEOGRAPHY.** 16mo. 2s. 6d.
- GREECE. With Coloured Map and Woodcuts.** 16mo. 3s. 6d.
- ROME. With Coloured Maps and Woodcuts.** 16mo. 3s. 6d.
- CLASSICAL MYTHOLOGY. Woodcuts.** 16mo. 3s. 6d.
- ENGLAND. With Coloured Maps and Woodcuts.** 16mo. 3s. 6d.
- ENGLISH LITERATURE.** 16mo. 3s. 6d.
- SPECIMENS OF ENGLISH LITERATURE.** 16mo. 3s. 6d.

SOMERVILLE (MARY). Physical Geography. Post 8vo. 9s.

————— **Connexion of the Physical Sciences.** Post 8vo. 9s.

————— (Dr., of Glasgow). [See SMITH, GEORGE.]

SOUTH (JOHN F.). Household Surgery; or, Hints for Emergencies. With Woodcuts. Fcap. 8vo. 3s. 6d.

SOUTHEY (ROBT.). Lives of Bunyan and Cromwell. Post 8vo. 2s.

STANHOPE'S (EARL) WORKS:—

HISTORY OF ENGLAND FROM THE REIGN OF QUEEN ANNE TO THE PEACE OF VERSAILLES, 1701-83. 9 Vols. Post 8vo. 5s. each.

LIFE OF WILLIAM PITT. Portraits. 3 Vols. 8vo. 36s.

MISCELLANIES. 2 Vols. Post 8vo. 13s.

BRITISH INDIA, FROM ITS ORIGIN TO 1783. Post 8vo. 3s. 6d.

HISTORY OF "FORTY-FIVE." Post 8vo. 3s.

HISTORICAL AND CRITICAL ESSAYS. Post 8vo. 3s. 6d.

RETREAT FROM MOSCOW, AND OTHER ESSAYS. Post 8vo. 7s. 6d.

LIFE OF BELISARIUS. Post 8vo. 10s. 6d.

LIFE OF CONDÉ. Post 8vo. 3s. 6d.

STORY OF JOAN OF ARC. Fcap. 8vo. 1s.

ADDRESSES ON VARIOUS OCCASIONS. 16mo. 1s.

[See also WELLINGTON.]

STANLEY'S (DEAN) WORKS:—

SINAI AND PALESTINE. Coloured Maps. 8vo. 12s.

BIBLE IN THE HOLY LAND; Extracts from the above Work. Woodcuts. Post 8vo. 3s. 6d.

EASTERN CHURCH. Plans. Crown 8vo. 6s.

JEWISH CHURCH. From the Earliest Times to the Christian Era. Portrait and Maps. 3 Vols. Crown 8vo. 18s.

CHURCH OF SCOTLAND. 8vo. 7s. 6d.

EPISTLES OF ST. PAUL TO THE CORINTHIANS. 8vo. 18s.

LIFE OF DR. ARNOLD. Portrait. 2 Vols. Cr. 8vo. 12s.

CANTERBURY. Illustrations. Crown 8vo. 6s.

WESTMINSTER ABBEY. Illustrations. 8vo. 15s.

SERMONS PREACHED IN WESTMINSTER ABBEY. 8vo. 12s.

MEMOIR OF EDWARD, CATHERINE, AND MARY STANLEY. Cr. 8vo. 9s.

CHRISTIAN INSTITUTIONS. Crown 8vo. 6s.

ESSAYS ON CHURCH AND STATE; 1850—1870. Crown 8vo. 6s.

SERMONS TO CHILDREN, including the Beatitudes, the Faithful Servant, &c. Post 8vo. 3s. 6d.

[See also BRADLEY.]

STEBBING (WM.). Some Verdicts of History Reviewed. 8vo. 12s.

STEPHENS (REV. W. R. W.). Life and Times of St. John Chrysostom. A Sketch of the Church and the Empire in the Fourth Century. Portrait. 8vo. 7s. 6d.

STREET (G. E.), R.A. Gothic Architecture in Brick and Marble. With Notes on North of Italy. Illustrations. Royal 8vo. 26s.

— Memoir of. By ARTHUR E. STREET. Portrait. 8vo. 15s.

STUART (VILLIERS). Egypt after the War. With Descriptions of the Homes and Habits of the Natives, &c. Coloured Illustrations and Woodcuts. Royal 8vo. 31s. 6d.

— Adventures Amidst the Equatorial Forests and Rivers of South America, also in the West Indies and the Wilds of Florida; to which is added "Jamaica Revisited." With Map and Illustrations. Royal 8vo. 21s.

STUDENTS' MANUALS. Post 8vo. 7s. 6d. EACH VOLUME:—

HUME'S HISTORY OF ENGLAND from the Invasion of Julius Cæsar to the Revolution in 1688. Revised, and continued to the Treaty of Berlin, 1878. By J. S. BREWER, M.A. Coloured Maps and Woodcuts. Or in 3 parts, price 2s. 6d. each.

* * Questions on the above Work, 12mo. 2s.

HISTORY OF MODERN EUROPE, from the fall of Constantinople to the Treaty of Berlin, 1878. By R. LODGE, M.A.

OLD TESTAMENT HISTORY; from the Creation to the Return of the Jews from Captivity. Woodcuts.

NEW TESTAMENT HISTORY. With an Introduction connecting the History of the Old and New Testaments. Woodcuts.

EVIDENCES OF CHRISTIANITY. By H. WACE, D.D. [*In the Press.*]

ECCLESIASTICAL HISTORY; a History of the Christian Church. By PHILIP SMITH, B.A. With numerous Woodcuts. 2 Vols. PART I. A.D. 30—1003. PART II., 1003—1614.

ENGLISH CHURCH HISTORY. By CANON PERRY. 3 Vols. *First Period*, A.D. 596—1509. *Second Period*, 1509—1717. *Third Period*, 1717—1884.

ANCIENT HISTORY OF THE EAST; Egypt, Assyria, Babylonia, Media, Persia, Asia Minor, and Phœnicia. By PHILIP SMITH, B.A. Woodcuts.

——— **GEOGRAPHY.** By CANON BEVAN. Woodcuts.

HISTORY OF GREECE; from the Earliest Times to the Roman Conquest. By WM. SMITH, D.C.L. Woodcuts.

* * Questions on the above Work, 12mo. 2s.

HISTORY OF ROME; from the Earliest Times to the Establishment of the Empire. By DEAN LIDDELL. Woodcuts.

GIBBON'S DECLINE AND FALL OF THE ROMAN EMPIRE. Woodcuts.

HALLAM'S HISTORY OF EUROPE during the Middle Ages.

HALLAM'S HISTORY OF ENGLAND; from the Accession of Henry VII. to the Death of George II.

HISTORY OF FRANCE; from the Earliest Times to the Fall of the Second Empire. By H. W. JERVIS. With Coloured Maps and Woodcuts.

ENGLISH LANGUAGE. By GEO. P. MARSH.

ENGLISH LITERATURE. By T. B. SHAW, M.A.

SPECIMENS OF ENGLISH LITERATURE. By T. B. SHAW. 5s.

MODERN GEOGRAPHY; Mathematical, Physical and Descriptive. By CANON BEVAN, M.A. Woodcuts.

GEOGRAPHY OF BRITISH INDIA. Political and Physical. By GEORGE SMITH, LL.D. Maps.

MORAL PHILOSOPHY. By WM. FLEMING.

STURGIS (JULIAN). Comedy of a Country House. 6s.

SUMNER'S (BISHOP) Life and Episcopate during 40 Years. By Rev. G. H. SUMNER. Portrait. 8vo. 14s.

SWAINSON (CANON). Nicene and Apostles' Creeds; Their Literary History; together with some Account of "The Creed of St. Athanasius." 8vo. 16s.

TEMPLE (SIR RICHARD). India in 1880. With Maps. 8vo. 16s.

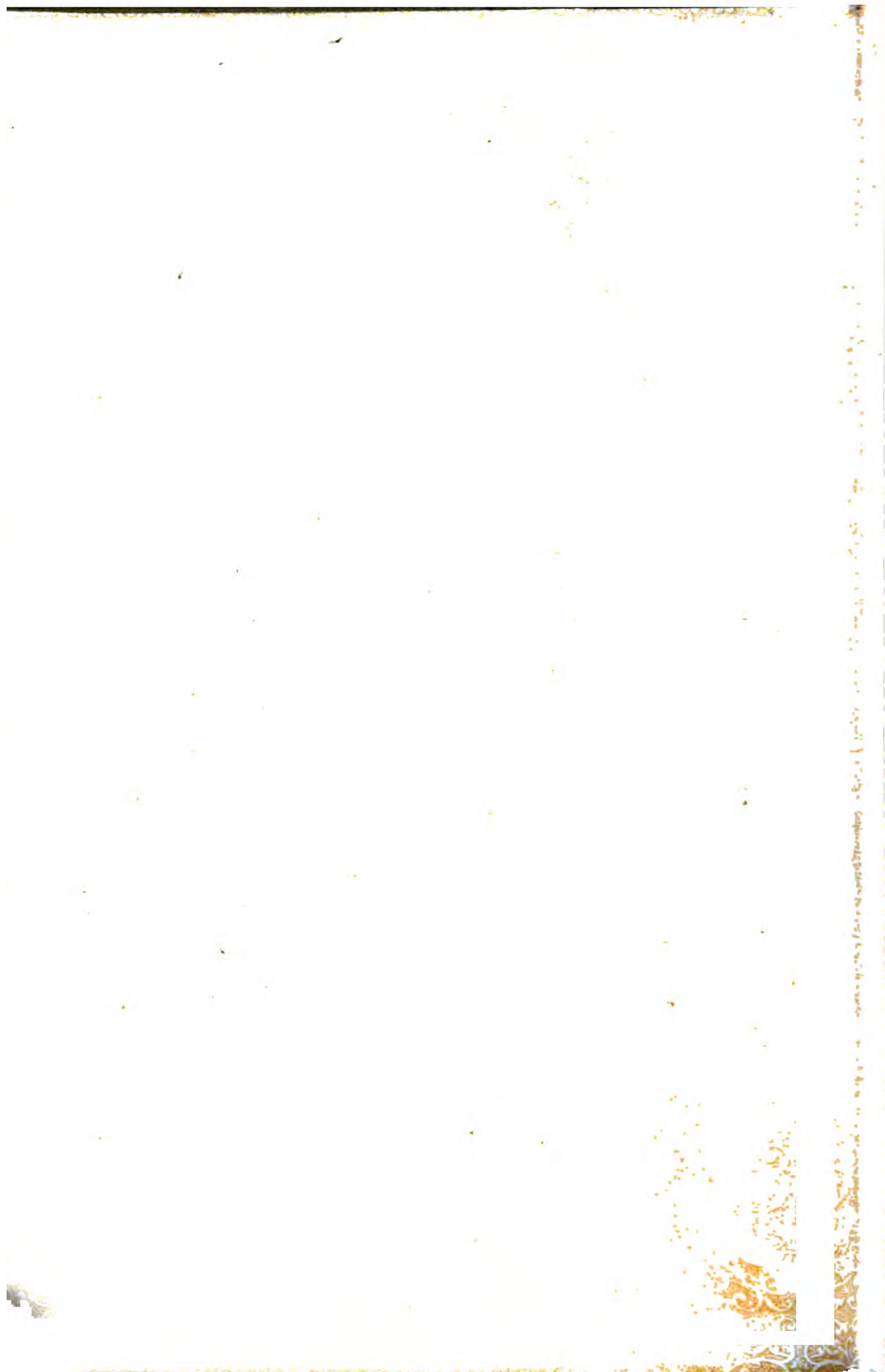
——— **Men and Events of My Time in India.** 8vo. 16s.

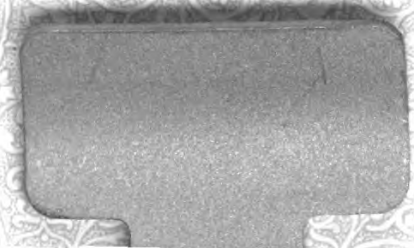
——— **Oriental Experience.** Essays and Addresses delivered on Various Occasions. With Maps and Woodcuts. 8vo. 16s.

THIBAUT'S (ANTOINE) Purity in Musical Art. With Prefatory Memoir by W. H. Gladstone, M.P. Post 8vo. 7s. 6d.

- THOMAS (SIDNEY GILCHRIST)**, Inventor; Memoir and Letters.
 Edited by R. W. BURNIE. Portraits. Crown 8vo. 9s.
- THOMSON (J. ARTHUR)**. The Study of Animal Life. With many
 Illustrations. (University Extension Manuals.)
- THORNHILL (MARK)**. The Personal Adventures and Experiences
 of a Magistrate during the Indian Mutiny. Crown 8vo. 12s.
- TITIAN'S LIFE AND TIMES**. By CROWE and CAVALCASELLE.
 Illustrations. 2 Vols. 8vo. 21s.
- TOCQUEVILLE'S** State of Society in France before the Revolution,
 1789, and on the Causes which led to that Event. 8vo. 12s.
- TOZER (REV. H. F.)**. Highlands of Turkey, with Visits to Mounts
 Ida, Athos, Olympus, and Pelion. 2 Vols. Crown 8vo. 24s.
 ——— Lectures on the Geography of Greece. Post 8vo. 9s.
- TRISTRAM (CANON)**. Great Sahara. Illustrations. Crown 8vo. 15s.
 ——— Land of Moab: Travels and Discoveries on the East
 Side of the Dead Sea and the Jordan. Illustrations. Crown 8vo. 15s.
- TWINING (REV. THOS.)**. Recreations and Studies of a Country
 Clergyman of the Last Century. 2 Vols. Crown 8vo. 9s. each.
 ——— (LOUISA). Symbols and Emblems of Early and
 Mediæval Christian Art. With 50 Illustrations. Crown 8vo. 6s.
- TYLOR (E. B.)**. Researches into the Early History of Mankind,
 and Development of Civilization. 3rd Edition. 8vo. 12s.
 ——— Primitive Culture: the Development of Mythology,
 Philosophy, Religion, Art, and Custom. 2 Vols. 8vo. 3rd Edit. 21s.
- UNIVERSITY EXTENSION MANUALS**. Edited by PRO-
 FESSOR WM. KNIGHT (St. Andrew's). A series of Manuals dealing
 with Literature, Science, Philosophy, History, Art, &c. Crown 8vo.
 Prospectus with full particulars will be forwarded on application.
- VIRCHOW (PROFESSOR)**. The Freedom of Science in the
 Modern State. Fcap. 8vo. 2s.
- WACE (REV. HENRY), D.D.** The Principal Facts in the Life of
 our Lord, and the Authority of the Evangelical Narratives. Post 8vo. 6s.
 ——— Christianity and Morality. Boyle Lectures for 1874 and
 1875. Seventh Edition. Crown 8vo. 6s.
 ——— The Foundations of Faith, being the Bampton Lectures
 for 1879. 8vo. 7s. 6d.
- WALES (H.R.H. THE PRINCE of)**. Speeches and Addresses.
 1863-1888. Edited by DR. J. MACAULAY. With Portrait. 8vo. 12s.
- WELLINGTON (DUKE of)**. Notes of Conversations with the
 late Earl Stanhope. 1831-1851. Crown 8vo. 7s. 6d.
 ——— Supplementary Despatches, relating to India,
 Ireland, Denmark, Spanish America, Spain, Portugal, France, Congress
 of Vienna, Waterloo and Paris. 15 Vols. 8vo. 20s. each.
 ——— Civil and Political Correspondence. Vols. I. to
 VIII. 8vo. 20s.
 ——— Speeches in Parliament. 2 Vols. 8vo. 42s.
- WESTCOTT (CANON B. F.)** The Gospel according to St. John, with
 Notes and Dissertations (Reprinted from the Speaker's Commentary.)
 8vo. 10s. 6d.
- WHARTON (CAPT. W. J. L.), R.N.** Hydrographical Surveying:
 being a description of the means and methods employed in constructing
 Marine Charts. With Illustrations. 8vo. 15s.
- WHITE (W.H.)**. Manual of Naval Architecture, for the use of
 Naval Officers, Shipbuilders, and Yachtsmen, &c. Illustrations. 8vo. 24s.

- WHYMPER (EDWARD).** Travels amongst the Great Andes of the Equator. With 140 Original Illustrations, drawn by F. BARNARD, A. CORBOULD, F. DADD, W. E. LAPWORTH, W. H. OVEREND, P. SKELTON, E. WAGNER, E. WILSON, JOSEPH WOLF, and others. Engraved by the Author. With Maps and Illustrations. Medium 8vo. 21s. *Nett.* To range with "Scrambles amongst the Alps."
- Supplementary Appendix to the above. With 61 Figures of New Genera and Species. Illus. Medium 8vo. 15s. *Nett.*
- How to Use the Aneroid Barometer. With numerous Tables. 2s. 6d. *Nett.*
- WILBERFORCE'S (BISHOP) Life of William Wilberforce.** Portrait. Crown 8vo. 6s.
- (SAMUEL, D.D.), Lord Bishop of Oxford and Winchester; his Life. By CANON ASHWELL, and R. G. WILBERFORCE. Portraits. 3 Vols. 8vo. 15s. each.
- WILKINSON (SIR J. G.).** Manners and Customs of the Ancient Egyptians, their Private Life, Laws, Arts, Religion, &c. A new edition. Edited by SAMUEL BIRCH, LL.D. Illustrations. 3 Vols. 8vo. 84s.
- Popular Account of the Ancient Egyptians. With 500 Woodcuts. 2 Vols. Post 8vo. 12s.
- WILLIAMS (SIR MONIER).** Brahmanism and Hinduism, Religious Thought and Life in India as based on the Veda. Enlarged Edition 18s.
- Buddhism; its connection with Brahmanism and Hinduism, and in its contrast with Christianity. With Illus. 8vo. 21s.
- WINTLE (H. G.).** Ovid Lessons. 12mo, 2s. 6d. [See ETON.]
- WOOD'S (CAPTAIN) Source of the Oxus.** With the Geography of the Valley of the Oxus. By COL. YULE. Map. 8vo. 12s.
- WOODS (MRS.).** Esther Vanhomrigh. A New Novel. 3 vols. Crown 8vo. 31s. d.
- WORDS OF HUMAN WISDOM.** Collected and Arranged by E. S. With a Preface by CANON LIDDON. Fcap. 8vo. 3s. 6d.
- WORDSWORTH (BISHOP).** Greece; Pictorial, Descriptive, and Historical. With an Introduction on the Characteristics of Greek Art, by GEO. SCHARF. New Edition revised by the Rev. H. F. TOZER, M.A. With 400 Illustrations. Royal 8vo. 31s. 6d.
- (CHARLES), Bishop of St. Andrews. The Collects of the Church of England, together with certain Psalms and Hymns appropriate to the Principal Festivals, rendered into Latin Verse. Crown 8vo, gilt edges, 5s.
- YORK (ARCHBISHOP OF).** Collected Essays. Contents.—Synoptic Gospels. Death of Christ. God Exists. Worth of Life. Design in Nature. Sports and Pastimes. Emotions in Preaching. Defects in Missionary work. Limits of Philosophical Enquiry. Crown 8vo. 9s.
- YORK-GATE LIBRARY (Catalogue of).** Formed by Mr. SILVER. An Index to the Literature of Geography, Maritime and Inland Discovery, Commerce and Colonisation. Compiled by E. A. PETHERICK. 2nd Edition. Royal 8vo. 42s.
- YOUNGHUSBAND (CAPT. G. J.).** The Queen's Commission: How to Prepare for it; how to Obtain it, and how to Use it. With Practical Information on the Cost and Prospects of a Military Career. Intended for Cadets, Subalterns, and Parents. Crown 8vo. 6s.
- YULE (COLONEL).** The Book of Ser Marco Polo, the Venetian, concerning the Kingdoms and Marvels of the East. Illustrated by the Light of Oriental Writers and Modern Travels. With Maps and 80 Plates. 2 Vols. Medium 8vo.
- and A. C. BURNELL. A Glossary of Anglo-Indian Colloquial Words and Phrases, and of Kindred Terms; Etymological, Historical, Geographical, and Discursive. Medium 8vo. 36s.
- (A. F.). The Cretan Insurrection. Post 8vo. 2s. 6d.





X

